



DEPARTMENT OF ENVIRONMENTAL QUALITY

KATHLEEN BABINEAUX BLANCO

GOVERNOR

MIKE D. McDANIEL, Ph.D.

SECRETARY

Certified Mail No.

Agency Interest No. 3271
Activity No.: PER20060002

Mr. Michael Milanowski
SASOL North America Inc.
2201 Old Spanish Trail
Westlake, Louisiana 70669

RE: Part 70 operating permit renewal, Ethylene Unit – Activated Sludge Unit – Steam Unit,
Lake Charles Chemical Complex, SASOL North America Inc., Westlake, Calcasieu
Parish, Louisiana

Dear Mr. Milanowski:

This is to inform you that the permit for the above referenced facility has been approved under LAC 33:III.501. The permit is both a state preconstruction and Part 70 Operating Permit. The submittal was approved on the basis of the emissions reported and the approval in no way guarantees the design scheme presented will be capable of controlling the emissions as to the types and quantities stated. A new application must be submitted if the reported emissions are exceeded after operations begin. The synopsis, data sheets and conditions are attached herewith.

It will be considered a violation of the permit if all proposed control measures and/or equipment are not installed and properly operated and maintained as specified in the application.

Operation of this facility is hereby authorized under the terms and conditions of this permit. This authorization shall expire at midnight on the _____ of _____, 2012, unless a timely and complete renewal application has been submitted six months prior to expiration. Terms and conditions of this permit shall remain in effect until such time as the permitting authority takes final action on the application for permit renewal. The permit number and Agency Interest number cited above should be referenced in future correspondence regarding this facility.

Done this _____ day of _____, 2007.

Permit No.: 2743-V2

Sincerely,

Chuck Carr Brown, Ph.D.
Assistant Secretary
CCB/DCN
cc: EPA Region VI

ENVIRONMENTAL SERVICES
PO BOX 4313, BATON ROUGE, LA 70821-4313
P:225-219-3181 F:225-219-3309
WWW.DEQ.LOUISIANA.GOV

PUBLIC NOTICE
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY (LDEQ)
SASOL NORTH AMERICA INC. / LAKE CHARLES CHEMICAL COMPLEX
ETHYLENE UNIT – ACTIVATED SLUDGE UNIT – STEAM UNIT
PROPOSED PART 70 AIR OPERATING PERMIT RENEWAL AND MODIFICATION

The LDEQ, Office of Environmental Services, is accepting written comments on the proposed Part 70 Air operating permit renewal and modification for SASOL North America Inc., 2201 Old Spanish Trail, Westlake, Louisiana 70669 for the Ethylene Unit – Activated Sludge Unit – Steam Unit, Lake Charles Chemical Complex,. **The facility is located at 2201 Old Spanish Trail, Westlake, Calcasieu Parish.**

SASOL North America Inc. owns and operates the Lake Charles Chemical Complex near Westlake, Calcasieu Parish, Louisiana. The complex includes various chemical production and support units. This permit will include the Activated Sludge Unit, the Ethylene Unit, and the Steam Unit. The Activated Sludge Unit currently operates under Permit 2895-V0, dated January 23, 2006. The Ethylene Unit currently operates under Permit 2743-V1, dated February 7, 2002. The Steam Unit currently operates under Permit 2901-V0, dated January 5, 2005.

SASOL North America Inc. requested a Part 70 operating permit renewal for the Ethylene Unit. The Steam Unit and the Activated Sludge Unit are also included in this permit. Emissions from the units were recalculated using updated emissions factors, emissions calculation methods, and current operating parameters.

Permitted emissions in tons per year are as follows:

Pollutant	Before	After	Change
PM ₁₀	130.16	130.12	- 0.04
SO ₂	377.83	377.83	-
NO _x	1530.38	1530.15	- 0.23
CO	561.36	563.09	+ 1.73
VOC, total	383.19	392.97	+ 9.78

A technical review of the working draft of the proposed permit was submitted to the facility representative and the LDEQ Surveillance Division. Any remarks received during the technical review will be addressed in the "Worksheet for Technical Review of Working Draft of Proposed Permit". All remarks received by LDEQ are included in the record that is available for public review.

Written comments, written requests for a public hearing or written requests for notification of the final decision regarding this permit action may be submitted to Ms. Soumaya Ghosn at LDEQ, Public Participation Group, P.O. Box 4313, Baton Rouge, LA 70821-4313. **Written comments and/or written requests must be received by 12:30 p.m., Tuesday, April 3, 2007.** Written comments will be considered prior to a final permit decision.

If LDEQ finds a significant degree of public interest, a public hearing will be held. LDEQ will send notification of the final permit decision to the applicant and to each person who has submitted written comments or a written request for notification of the final decision.

The permit application, proposed permit, statement of basis and environmental assessment statement (EAS) are available for review at the LDEQ, Public Records Center, Room 127, 602 North 5th Street, Baton Rouge, LA. Viewing hours are from 8:00 a.m. to 4:30 p.m., Monday through Friday (except holidays). **The available information can also be accessed**

electronically on the Electronic Document Management System (EDMS) on the DEQ public website at www.deq.louisiana.gov.

Additional copies may be reviewed at Calcasieu Parish Library - Westlake Branch located at 937 Mulberry Street, Westlake, LA 70669 and the at Calcasieu Parish Library - Sulphur Regional Branch located at 1160 Cypress Street, Sulphur, LA 70663.

Inquiries or requests for additional information regarding this permit action should be directed to Mr. Dan Nguyen, LDEQ, Air Permits Division, P.O. Box 4313, Baton Rouge, LA 70821-4313, phone (225) 219-3075.

Persons wishing to be included on the LDEQ permit public notice mailing list or for other public participation related questions should contact the Public Participation Group in writing at LDEQ, P.O. Box 4313, Baton Rouge, LA 70821-4313, by email at maillistrequest@ldeq.org or contact the LDEQ Customer Service Center at (225) 219-LDEQ (219-5337).

Permit public notices including electronic access to the proposed permit and statement of basis can be viewed at the LDEQ permits public notice webpage at www.deq.state.la.us/news/PubNotice/ and general information related to the public participation in permitting activities can be viewed at www.deq.louisiana.gov/portal/tabid/2198/Default.aspx.

Alternatively, individuals may elect to receive the permit public notices via email by subscribing to the LDEQ permits public notice List Server at http://www.state.la.us/ldbc/listservpage/ldeq_pn_listserv.htm.

All correspondence should specify AI Number 3271, Permit Number 2743-V2, and Activity Number PER20060002.

Publication Date: Tuesday, February 27, 2007.

**AIR PERMIT BRIEFING SHEET
OFFICE OF ENVIRONMENTAL SERVICES, PERMITS DIVISION
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**ETHYLENE UNIT – ACTIVATED SLUDGE UNIT – STEAM UNIT
LAKE CHARLES CHEMICAL COMPLEX
AGENCY INTEREST NO. 3271
SASOL NORTH AMERICA INC.
WESTLAKE, CALCASIEU PARISH, LOUISIANA**

I. Background

SASOL North America Inc. owns and operates the Lake Charles Chemical Complex near Westlake, Calcasieu Parish, Louisiana. The complex includes various chemical production and support units. This permit will include the Activated Sludge Unit, the Ethylene Unit, and the Steam Unit. The Activated Sludge Unit currently operates under Permit 2895-V0, dated January 23, 2006. The Ethylene Unit currently operates under Permit 2743-V1, dated February 7, 2002. The Steam Unit currently operates under Permit 2901-V0, dated January 5, 2005.

II. Origin

A Part 70 operating permit application and Emission Inventory Questionnaire dated March 22, 2006, were submitted requesting a Part 70 operating permit renewal.

III. Description

The Activated Sludge Unit (ASU) consists of equipment and systems used to handle, transfer, store, and treat wastewater generated throughout the SASOL Lake Charles Chemical Complex. The ASU equipment is broken down into three sections: the Quench System, the Collection System, and the Treatment System.

The quench system receives alkyls and unreacted solid aluminum, which has been diluted with LPA solvent, from the Alcohol Unit. The stream is reacted with water and steam in the quench reactor to form aluminum hydroxide, hydrocarbon gases, and hydrogen. Solvent is recycled to the Alcohol Unit. Hydrogen and hydrocarbon gases are routed to the Alcohol Unit fuel gas system. Water is sent to the Sand Filter Settling Basins and then the Holding Pond.

The collection system includes the holding pond, CPI, oily solids handling system, oil collection tanks, and DAF system. Oily wastewater from various units of the Lake Charles Chemical Complex and the ASU holding pond are routed to the CPI for water/oil/solids separation. Water is sent to the DAF system for further separation and then the ASU equalization tanks. Oil stream is routed to the black tanks while solids are pumped to a filter press.

The treatment system received wastewater from the ASU DAF system and miscellaneous sources from the Ethylene Offsites, groundwater recovery operations, cooling tower and boiler blowdown, and Georgia Gulf VCM plant. Wastewater enters the equalization tank, pH adjustment tank, and then the activated sludge/biological treatment tanks. The water then flows into the clarification tanks for solid removal and the final finishing tank prior to being discharged.

AIR PERMIT BRIEFING SHEET
OFFICE OF ENVIRONMENTAL SERVICES, PERMITS DIVISION
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

ETHYLENE UNIT – ACTIVATED SLUDGE UNIT – STEAM UNIT
LAKE CHARLES CHEMICAL COMPLEX
AGENCY INTEREST NO. 3271
SASOL NORTH AMERICA INC.
WESTLAKE, CALCASIEU PARISH, LOUISIANA

The Ethylene Unit (ETH) consists of all equipment and system used to produce, transfer, and handle ethylene, such as, cracking furnace, compressor, quench system, caustic wash system, drying section, and fractionation section.

Ethane is thermally cracked in the presence of diluted steam in one of seven cracking furnaces. From the furnaces, the cracked gas is cooled in the quench section, compressed, purified in the caustic wash column, dehydrated, and then further cooled down. The gas is separated in a series of distillation columns to recover ethylene, co-products, and byproducts, including heavy aromatic distillate, light aromatic concentrate, methane off-gas, hydrogen off-gas, mixed propane and propylene, and mixed C4's. Ethylene product is transport by pipeline to the Alcohol Unit, to the offsite ethylene storage domes, or to customers.

The Steam Unit consists of the equipment and systems used to generate and deliver steam to process areas throughout the complex. It includes three boilers, a feedwater treatment system, a boiler blowdown drum, an atmospheric boiler blowdown flash drum, a fuel storage tank, fuel gas piping, and steam distribution piping.

Water is fed the boiler feedwater treatment system where hardness, alkalinity, and silica are removed from the water. The treated water may be combined with steam condensate from the process units before being fed to the boilers or other boiler feedwater users. The treated feedwater is typically pressurized from 25 psig and 850 psig by two turbine-driven pumps.

The boilers can combust natural gas, refinery fuel gas, ethane, distillate oil, or some combination of these fuels to generate the required process steam. Each of these fuels is delivered to the site by pipeline. Distillate fuel oil is stored on-site and is used only when the gaseous fuels are not available. When firing gaseous fuels, each boiler is designed to generate up to 230,000 pounds per hour of 625-psig steam superheated to 750 °F.

SASOL North America requests a Part 70 operating permit for the Ethylene Unit. The Steam Unit and the Activated Sludge Unit are also included in this permit. Emissions from the units were recalculated using updated emissions factors, emissions calculation methods, and current operating parameters. Permitted emissions from the units in tons per year are as follows:

<u>Pollutant</u>	<u>Before</u>	<u>After</u>	<u>Change</u>
PM ₁₀	130.16	130.12	- 0.04
SO ₂	377.83	377.83	-
NO _x	1530.38	1530.15	- 0.23
CO	561.36	563.09	+ 1.73
VOC, total	383.19	392.97	+ 9.78

**AIR PERMIT BRIEFING SHEET
OFFICE OF ENVIRONMENTAL SERVICES, PERMITS DIVISION
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**ETHYLENE UNIT – ACTIVATED SLUDGE UNIT – STEAM UNIT
LAKE CHARLES CHEMICAL COMPLEX
AGENCY INTEREST NO. 3271
SASOL NORTH AMERICA INC.
WESTLAKE, CALCASIEU PARISH, LOUISIANA**

IV. Type of Review

This application was reviewed for compliance with the Louisiana Part 70 operating permit program, Louisiana Air Quality Regulations, NSPS, and NESHAP. PSD does not apply. The unit is a part of a major source of toxic air pollutants (TAPs) pursuant to LAC 33:III.Chapter 51.

V. Credible Evidence

Notwithstanding any other provisions of any applicable rule or regulation or requirement of this permit that state specific methods that may be used to assess compliance with applicable requirements, pursuant to 40 CFR Part 70 and EPA's Credible Evidence Rule, 62 Fed. Reg. 8314 (Feb. 24, 1997), any credible evidence or information relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed shall be considered for purposes of Title V compliance certifications. Furthermore, for purposes of establishing whether or not a person has violated or is in violation of any emissions limitation or standard or permit condition, nothing in this permit shall preclude the use, including the exclusive use, by any person of any such credible evidence or information.

VI. Public Notice

A notice requesting public comment on the permit was published in *The Advocate*, Baton Rouge, and in the *American Press*, Lake Charles, on XXX, 2006, and was mailed to concerned citizens listed in the Office of Environmental Services Public Notice Mailing List on XXX, 2006. The permit application, the proposed permit, and the Statement of Basis were submitted to the Calcasieu Parish Library Headquarters, Westlake Branch and the Sulphur Regional, Calcasieu Parish Library on XXX, 2006. The proposed permit and the Statement of Basis were submitted to the Texas Commission on Environmental Quality and US EPA Region and VI. All comments will be considered prior to a permit decision.

AIR PERMIT BRIEFING SHEET
OFFICE OF ENVIRONMENTAL SERVICES, PERMITS DIVISION
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

ETHYLENE UNIT – ACTIVATED SLUDGE UNIT – STEAM UNIT
LAKE CHARLES CHEMICAL COMPLEX
AGENCY INTEREST NO. 3271
SASOL NORTH AMERICA INC.
WESTLAKE, CALCASIEU PARISH, LOUISIANA

VII. Effects on Ambient Air

Dispersion Model Used: ISCST3

Pollutant	Averaging Period	Calculated Maximum Ground Level Concentration ($\mu\text{g}/\text{m}^3$)	Ambient Air Standard (AAS) ($\mu\text{g}/\text{m}^3$)
1,2-Dichloroethane	Annual	0.29	3.85
Benzene	Annual	11.9	12.0
Ammonia	8-hour	370	640

VIII. General Condition XVII Activities

ID	Description	Emissions (tons/yr)		
		VOC	PM ₁₀	Others
GC17-1	Sampling	1.69		<0.01
GC17-2	Pump Maintenance		<0.01	
GC17-4	Safety Inspections/Checks on Pressure or Vacuum Vents on Tanks		<0.01	
GC17-5	Inspections on Control Devices	0.10		<0.01
GC17-7	Tank, Pond, and Basin Sludge Removal	0.01		<0.01
GC17-8	Carbon Bed Recharging or Replacement	0.03		
GC17-9	Tank Gauging		<0.01	
GC17-10	Instrument Maintenance	1.19		<0.01
GC17-11	Vessel and Equipment Preparation	4.19		
GC17-13	Pipelines and Associated Equipment Clearing	5.03		0.03
GC17-17	Filter and Strainer Changeouts	0.34		<0.01
GC17-19	Valve Maintenance	0.06		<0.01
GC17-23	Routine Sludge (Biomass) Wasting	0.01		
GC17-24	Temporary Storage	0.29		
GC17-25	Vacuum Truck Operations	0.21		
GC17-26	Process Activities	1.37		0.01
ASU-F-REPLACE	Anthracite Pressure Filters Replacement		0.01	

AIR PERMIT BRIEFING SHEET
OFFICE OF ENVIRONMENTAL SERVICES, PERMITS DIVISION
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

ETHYLENE UNIT – ACTIVATED SLUDGE UNIT – STEAM UNIT
LAKE CHARLES CHEMICAL COMPLEX
AGENCY INTEREST NO. 3271
SASOL NORTH AMERICA INC.
WESTLAKE, CALCASIEU PARISH, LOUISIANA

ID	Description	Emissions (tons/yr)		
		VOC	PM ₁₀	Others
ETH-FA-209A/B/C	Charge Gas Dryer Molecular Sieve Replacement		< 0.01	
ETH-FA-409A/B/C	Ethane Feed Dryers Molecular Sieve Replacement		< 0.01	
ETH-FA-416A/B	Frac Feed Dryers Molecular Sieve Replacement		< 0.01	
STM-F-1	Anthracite Filter Replacement		0.01	

IX. Insignificant Activities (LAC 33:III.501.B.5)

ID	Description	Volume (gallons)	Citation
FB-251A	Slop Oil Tank No. 1	< 10,000	A.3
FB-DIESEL1	ASU Area Diesel Tank No. 1	< 10,000	A.3
FB-DIESEL2	ASU Area Diesel Tank No. 2	< 10,000	A.3
FB-DIESEL3	ASU Area Diesel Tank No. 3	< 10,000	A.3
ETH-FB-206	Liquid Caustic Day Tank		B.40
ETH-T7-902	Liquid Caustic (17 – 50%) Storage Tank		B.40
ETH-AIR DRYERS	Instrument Air Dryers		B.22
ETH-D-414A/B ISA	Propadiene Converters Catalyst Replacement		A.11
ETH-D7-448/449	New Ethane Feed Dryers Catalyst Replacement		A.11
ETH-DC-311	Big Mathanator Catalyst Replacement		A.11
ETH-FA-126	VDOX Catalyst Replacement		A.11
ETH-FA-306A/B	Small Mathanator Catalyst Replacement		A.11
ETH-FA-308	H2 Dryer Sift Catalyst Replacement		A.11
ETH-FA-403A/B/C ISA	Acetylene Converter Catalyst Replacement		A.11
ETH-FD-127A/B	PGMC Catalyst Replacement		A.11
STM-B5-100	Powdered Lime Added to Water for Water Treatment		B.8

AIR PERMIT BRIEFING SHEET
OFFICE OF ENVIRONMENTAL SERVICES, PERMITS DIVISION
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

ETHYLENE UNIT – ACTIVATED SLUDGE UNIT – STEAM UNIT
LAKE CHARLES CHEMICAL COMPLEX
AGENCY INTEREST NO. 3271
SASOL NORTH AMERICA INC.
WESTLAKE, CALCASIEU PARISH, LOUISIANA

ID	Description	Volume (gallons)	Citation
STM-MO-1	Powdered Magnesium Oxide Addition for Water Treatment		B.8
ASU-LBT	ASU Laboratory Equipment/Vents		A.6
ETH-LBT-N	New Ethylene Laboratory Equipment/Vents		A.6
ETH-LBT-O	Old Ethylene Laboratory Equipment/Vents		A.6
STM-LBT	Steam Plant Laboratory Equipment/Vents		A.6
ASU-DW1	Drum Wash Black Oil Tank Unloading Pad		A.7
ASU-DW2	Drum Wash Tank Truck Unloading Pad at Holding Pond		A.7
ASU-DW3	Drum Wash Truck Wash Pad		A.7
	Ethylene Coke Fines Dumpster and Drum Cleaning Pad		A.7
ETH-DW	Drum Wash Truck Wash Unloading Pad		A.7
ETH-VTC	Ethylene Vacuum Truck Cleaning		A.7
ETH-WAO	Ethylene WAO Air Compressor Area		B.22

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

ETHYLENE UNIT – ACTIVATED SLUDGE UNIT – STEAM UNIT
LAKE CHARLES CHEMICAL COMPLEX
AGENCY INTEREST NO. 3271
SASOL NORTH AMERICA INC.
WESTLAKE, CALCASIEU PARISH, LOUISIANA

X. Applicable Louisiana and Federal Air Quality Requirements

ID No.:	Description	LAC 33:III.												LAC 33:III Chapter					
		2103	2107	2109	2111	2113	2115	2122	2147	2153	5	9	11	13	15	29*	51*	56	59
EQT020	STM-B7-901 - Utility Steam Boiler No. 1															1	1	1	1
EQT021	STM-B7-902 - Utility Steam Boiler No. 2															1	1	1	1
EQT022	STM-B7-903 - Utility Steam Boiler No. 3															1	1	1	1
EQT024	STM-T7-918 - No. 2 Fuel Oil Tank	3														1			
EQT295	ASU-BLK-SP - Black Tanks Sump	3														1			
EQT296	ASU-D7-951 - Supplemental BOD Tank	3														1			
EQT297	ASU-FB-252 - LPA Solvent Tank	3														1			
EQT298	ASU-HPSS - Holding Pond Inlet/Holding Pond Skimming Section	3														1			
EQT299	ASU-Holding Pond - Holding Ponds (HP-91/HP-92)	3														1			
EQT300	ASU-NL-91 - Storm Water Diversion Ponds - North	3														1			
EQT301	ASU-S-2 - CPI	3														1			
EQT302	ASU-SFSB-250A - Sand Filter Settling Basin - North															1			
EQT303	ASU-SUMPS - CPI Sump, Junction Box, Diversion Box, and Mixing Box															1			
EQT304	ASU-T10-01 - Equalization Tank	3														1			
EQT305	ASU-T10-02 - Inventory Tank	3														1			
EQT306	ASU-T10-03 - pH Adjustment Splitter Tank	3														1			
EQT307	ASU-T10-04A - Aeration Tank A	3														1			
EQT308	ASU-T10-04B - Aeration Tank B	3														1			
EQT309	ASU-T10-05 - Flocculator / Splitter Tank	3														1			

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

ETHYLENE UNIT - ACTIVATED SLUDGE UNIT - STEAM UNIT
LAKE CHARLES CHEMICAL COMPLEX
AGENCY INTEREST NO. 3271
SASOL NORTH AMERICA INC.
WESTLAKE, CALCASIEU PARISH, LOUISIANA

X. Applicable Louisiana and Federal Air Quality Requirements

ID No.:	Description	LAC 33:II.												LAC 33:III Chapter											
		21	03	21	07	21	09	21	11	21	13	21	15	21	17	21	15	3	9	11	13	15	29*	51*	56
EQT310	ASU-T10-06A - Clarifier A	3																							1
EQT311	ASU-T10-06B - Clarifier B	3																							1
EQT312	ASU-T10-06C - Clarifier C	3																							1
EQT313	ASU-T10-07 - Recycle Sludge Tank	3																							1
EQT314	ASU-T10-08 - Scum Tank	3																							1
EQT315	ASU-T10-09 - Filter Feed Tank	3																							1
EQT316	ASU-T10-10 - Clearwell Tank	3																							1
EQT317	ASU-T10-11 - Filter Backwash Holding Tank	3																							1
EQT318	ASU-T10-12 - Primary Sludge Thickener	3																							1
EQT319	ASU-T10-13 - Thickener Supernatant Tank	3																							1
EQT320	ASU-T10-18 - Ammonia Water Tank	3																							1
EQT321	ASU-T10-20A - Filter Area Tank and Sump	3																							1
EOT322	ASU-T10-21 - Effluent Holding Tank	3																							1
EQT323	ASU-T10-23 - Secondary Sludge Thickener	3																							1
EQT324	ASU-T10-24 - Secondary Sludge Thickener	3																							1
EQT325	ASU-T10-25 - Thickener Supernatant Tank	3																							1
EQT326	ASU-T10-61 - DAF Feed Tank	3																							1
EQT327	ASU-T10-62 - Coagulation Tank	3																							1
EQT328	ASU-T10-63 - Flootation Tank	3																							1
EQT329	ASU-T10-64 - DAF Effluent Tank	3																							1

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**ETHYLENE UNIT - ACTIVATED SLUDGE UNIT - STEAM UNIT
LAKE CHARLES CHEMICAL COMPLEX**

AGENCY INTEREST NO. 3271

SASOL NORTH AMERICA INC.

WESTLAKE, CALCASIEU PARISH, LOUISIANA

X. Applicable Louisiana and Federal Air Quality Requirements

ID No.:	Description	LAC 33:III.												LAC 33:III Chapter												
		20	03	21	07	21	09	21	11	21	13	21	15	21	17	21	19	5	9	11	13	15	29*	51*	56	59
EQT330	ASU-T10-65 - DAF Float Tank	3																								1
EQT331	ASU-T6-227 - Black Tank	3																								1
EQT332	ASU-T6-249 - Black Tank	3																								1
EQT333	ASU-T6-903 - Press Feed Tank (FB-926)	3																								1
EQT334	ASU-T6-904 - Oily Solids Wastewater Tank (FB-927)	3																								1
EQT335	FA-251 - Quench Surge Tank	1																								1
EQT336	FA-252 - Quench Off-Gas Knock-Out Pot																									1
EQT337	FA-253 - Quench Reactor																	3								1
EQT338	FB-254 - Quench Solid Settling Tank																		1							1
EQT339	ALC - Alcohol Unit Fuel Gas System																			1						1
EQT379	ASU-SL-91 - Storm Water Diversion Pond - South	3																								1
EQT380	ASU-SFSB-250B - Sand Filter Settling Basin - South																									1
EQT381	ASU-T10-20B - Filter Area Tank and Sump	3																								1
EQT382	ETH-BA-101 - Ethylene Cracking Furnace																	3								1
EQT383	ETH-BA-102 - Ethylene Cracking Furnace																	3								1
EQT384	ETH-BA-103 - Ethylene Cracking Furnace																	3								1
EQT385	ETH-BA-104 - Ethylene Cracking Furnace																	3								1
EQT386	ETH-BA-105 - Ethylene Cracking Furnace																	3								1
EQT387	ETH-BA-106 - Ethylene Cracking Furnace																	3								1
EQT388	ETH-BA-107 - Ethylene Cracking Furnace																	3								1

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

ETHYLENE UNIT - ACTIVATED SLUDGE UNIT - STEAM UNIT
 LAKE CHARLES CHEMICAL COMPLEX
 AGENCY INTEREST NO. 3271
 SASOL NORTH AMERICA INC.
 WESTLAKE, CALCASIEU PARISH, LOUISIANA

X. Applicable Louisiana and Federal Air Quality Requirements

ID No.:	Description	LAC 33:III												LAC 33:III Chapter				
		2103	2107	2109	2111	2113	2115	2122	2147	2153	5	9	11	13	15	29*	56	59
EQT389	ETH-BA-201 - Feed Dryer Regenerator															1	1	1
EQT390	ETH-BA-401 - Acetylene / Propadiene Converter Regenerator															1	1	1
EQT391	ETH-CT-201 - North Ethylene Cooling Tower															1	1	1
EQT392	ETH-EGF - Enclosed Ground Flare															1	1	1
EQT393	ETH-F-501 - Ethylene Unit Elevated Flare															1	1	1
EQT394	ETH-FA-403V - Acetylene / Propadiene Converter															2		
EQT395	ETH-FB-207 - Caustic Sewer Sump															1		
EQT396	ETH-FB-215 - Compressor Wash Oil Tank																1	
EQT397	ETH-FB-253 - Sulfide Caustic Storage Tank FB-253															1		
EQT398	ETH-FB-801 - Methanol / Propanol Storage Tank															1		
EQT399	ETH-FB-802 - Compressor Wash Oil Day Tank															3		
EQT400	ETH-LR-4 - Ethylene Loading Rack															1		
EQT401	ETH-LR-4A - Sulfide Caustic Loading Station															1		
EQT402	ETH-T7-903 - Injection Oil Tank															3		
EQT403	ETH-T7-913 - HAD / Oil Tank															3		
EQT404	ETH-T7-914 - North Wastewater Tank															3		
EQT405	ETH-T7-915 - South Wastewater Tank															3		
EQT406	ETH-T7-916 - Wastewater Tank															1		
EQT407	ETH-T7-929 - Sulfide Caustic Tank															3		
EQT408	ETH-WW - Ethylene Unit Wastewater Sources															3		

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

ETHYLENE UNIT – ACTIVATED SLUDGE UNIT – STEAM UNIT
LAKE CHARLES CHEMICAL COMPLEX
AGENCY INTEREST NO. 3271
SASOL NORTH AMERICA INC.
WESTLAKE, CALCASIEU PARISH, LOUISIANA

X. Applicable Louisiana and Federal Air Quality Requirements

ID No.:	Description	LAC 33:III Chapter																	
		2103	2107	2109	2111	2113	2115	2122	2147	2153	5	9	11	13	15	29*	51*	56	59
EQT409	ETH-Y7-902 - South Ethylene Cooling Tower																		
EQT414	ETH-D7-1113 - MEROX Storage Tank	1																	
EQT415	ETH-DA-401 - Demethanizer											3							
EQT416	ETH-DA-402 - Deethanizer											3							
EQT417	ETH-DA-403 - Ethylene Fractionator Rectifier Tower											3							
EQT418	ETH-DA-404 - Depropanizer											3							
EQT419	ETH-DA-405 - Ethylene Fractionator Stripper Tower											3							
EQT420	ETH-DA-407 - Debutanizer											3							
EQT421	ETH-DA-408 - Demethanizer Overhead Rectifier											3							
EQT422	ETH-FA-414A - Propadiene Converter																		
EQT423	ETH-FA-414B - Propadiene Converter																		
EQT424	ETH-D7-1005 - Flare Stack Condensate Knock Out Pot HA-900	1																	
EQT425	ETH-D7-901 - Mixed C4 (Butadiene) Storage Bullet	1																	
EQT426	ETH-D7-902 - Mixed C4 (Butadiene) Storage Bullet	1																	
EQT427	ETH-D7-903 - Propylene Storage Bullet	1																	
EQT428	ETH-D7-922 - Propane/Propylene Storage Bullet	1																	
EQT429	ETH-D7-927 - Propane/Propylene Storage Bullet	1																	
EQT430	ETH-D7-946 - Heavy Aromatic Distillate Storage Bullet	1																	
EQT431	ETH-D7-947 - Sulfide Caustic / Oil Separation Drum	1																	
EQT432	ETH-D7-952 - Degasming Pot	1										3							

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

ETHYLENE UNIT – ACTIVATED SLUDGE UNIT – STEAM UNIT
LAKE CHARLES CHEMICAL COMPLEX
AGENCY INTEREST NO. 3271
SASOL NORTH AMERICA INC.
WESTLAKE, CALCASIEU PARISH, LOUISIANA

X. Applicable Louisiana and Federal Air Quality Requirements

ID No.:	Description	LAC 33:III.										LAC 33:III:Chapter						
		2103	2107	2109	2111	2113	2115	2122	2147	2153	5	9	11	13	15	29*	51*	56
EQT433	ETH-D7-983 - Off-Sites Low Pressure Wet Flare Header Knockout Drum																	
EQT434	ETH-D7-984 - Off-Sites Low Pressure Wet Flare Header Knockout Transfer Pot																	
EQT435	ETH-FA-801 - Wet Flare Drum D7-801																	
EQT436	ETH-FB-803 - Methanol / Propanol Storage Tank	1																
EQT437	ETH-HA-103 - MEROX Day Tank																	
EQT438	ETH-HA-104 - MEROX Satellite Tank																	
EQT439	ETH-HA-203 - Caustic Tower Degassing Pot																	
EQT440	ETH-HA-204 - Water Wash Pot for Caustic Tower																	
EQT441	ETH-W7-901 - Benzene Stripper																	
EQT442	ETH-FA-403A - Acetylene Converter																	
EQT443	ETH-FA-403B - Acetylene Converter																	
EQT444	ETH-FA-403C - Acetylene Converter																	
EQT445	ETH-T7-901 - Light Aromatic Concentrate Storage Bullet	1																
EQT446	ETH-T7-975 - Tank T7-975																	
EQT448	ETH-D-414A - Propadiene Converter																	
EQT449	ETH-D-414B - Propadiene Converter																	
EQT450	ETH-WHRRB - Ethylene Furnaces Waste Heat Recovery Boiler																	
FUGD02	STM-FE-1 - Steam Unit Fugitives															1	1	1

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

ETHYLENE UNIT – ACTIVATED SLUDGE UNIT – STEAM UNIT
LAKE CHARLES CHEMICAL COMPLEX
AGENCY INTEREST NO. 3271
SASOL NORTH AMERICA INC.
WESTLAKE, CALCASIEU PARISH, LOUISIANA

X. Applicable Louisiana and Federal Air Quality Requirements

ID No.:	Description	LAC 33:III.										LAC 33:III.Chapter						
		2103	2107	2109	2111	2113	2115	2122	2147	2153	5	9	11	13	15	29*	51*	56
FUG006	ASU-FE-1 - Active Sludge Unit Fugitive										1	1						1
FUG008	ETH-FE-1-E - Ethylene Unit Fugitive										1	1						1
GRP042	ETH-CAP - Ethylene Cracking Furnaces Cap																	
GRP043	STM-CAP - Utility Steam Boilers Cap																	
GRP044	ETH-FLARE - Ethylene Unit Flare Cap																	
GRP045	ETH-WAOF - Wet Air Oxidation Feed Tanks																	
GRP046	ETH-WWTKS - Wastewater Tanks Cap																	
GRP047	Active Sludge Unit - Ethylene Unit - Steam Unit									1		3	1			1	1	1

KEY TO MATRIX

- 1 - The regulations have applicable requirements which apply to this particular emission source.
 - The emission source may have an exemption from control stated in the regulation. The emission source may not have to be controlled but may have monitoring, recordkeeping, or reporting requirements.
- 2 - The regulations have applicable requirements which apply to this particular emission source but the source is currently exempt from these requirements due to meeting a specific criteria, such as it has not been constructed, modified or reconstructed since the regulations have been in place. If the specific criteria changes the source will have to comply at a future date.
- 3 - The regulations apply to this general type of emission source (i.e. vents, furnaces, and fugitives) but do not apply to this particular emission source.
 Blank - The regulations clearly do not apply to this type of emission source.

* The regulations indicated above are State Only regulations.

- ▲ All LAC 33:III Chapter 5 citations are federally enforceable including LAC 33:III.501.C.6 citations, except when the requirement found in the "Specific Requirements" report specifically states that the regulation is State Only.

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

ETHYLENE UNIT – ACTIVATED SLUDGE UNIT – STEAM UNIT
LAKE CHARLES CHEMICAL COMPLEX
AGENCY INTEREST NO. 3271
SASOL NORTH AMERICA INC.
WESTLAKE, CALCASIEU PARISH, LOUISIANA

X. Applicable Louisiana and Federal Air Quality Requirements

ID No.:	Description	40 CFR 60 NSPS						40 CFR 61						40 CFR 63 NESHAP						40 CFR						
		A	D	Bb	Dc	Kb	V	NNN	RRR	YYY	A	M	FF	A	G	H	Q	SS	UU	WW	XX	YY	4F	5D	68	82
EQT020	STM-B7-901 - Utility Steam Boiler No. 1	3	3																							1
EQT021	STM-B7-902 - Utility Steam Boiler No. 2	3	3																							1
EQT022	STM-B7-903 - Utility Steam Boiler No. 3	3	3																							1
EQT024	STM-T7-918 - No. 2 Fuel Oil Tank																									
EQT295	ASU-BLK-SP - Black Tanks Sump																									
EQT296	ASU-D7-951 - Supplemental BOD Tank																									
EQT297	ASU-FB-252 - LPA Solvent Tank																									
EQT298	ASU-HPSS - Holding Pond Inlet/Holding Pond Skimming Section																									
EQT299	ASU-Holding Pond - Holding Ponds (HP-91/HP-92)																									
EQT300	ASU-NL-91 - Storm Water Diversion Ponds - North																									
EQT301	ASU-S-2 - CPI																									
EQT302	ASU-SFSB-250A - Sand Filter Setting Basin - North																									
EQT303	ASU-SUMPS - CPI Sump, Junction Box, Diversions Box, and Mixing Box																									
EQT304	ASU-T10-01 - Equalization Tank																									
EQT305	ASU-T10-02 - Inventory Tank																									
EQT306	ASU-T10-03 - pH Adjustment Splitter Tank																									
EQT307	ASU-T10-04A - Aeration Tank A																									

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

**ETHYLENE UNIT - ACTIVATED SLUDGE UNIT - STEAM UNIT
LAKE CHARLES CHEMICAL COMPLEX
AGENCY INTEREST NO. 3271
SASOL NORTH AMERICA INC.
WESTLAKE, CALCASIEU PARISH, LOUISIANA**

X. Applicable Louisiana and Federal Air Quality Requirements

ID No.:	Description	40 CFR 60 NSPS						40 CFR 61						40 CFR 63 NESHAP						40 CFR						
		A	D	Db	Dc	Kb	W	NNN	RRR	YYY	A	M	FF	A	G	H	Q	SS	UU	WW	XX	YY	4F	5D	68	82
EQT308	ASU-T10-04B - Aeration Tank B										3															
EQT309	ASU-T10-05 - Flocculator / Splitter Tank										3															
EQT310	ASU-T10-06A - Clarifier A										3															
EQT311	ASU-T10-06B - Clarifier B										3															
EQT312	ASU-T10-06C - Clarifier C										3															
EQT313	ASU-T10-07 - Recycle Sludge Tank										3															
EQT314	ASU-T10-08 - Scum Tank										3															
EQT315	ASU-T10-09 - Filter Feed Tank										3															
EQT316	ASU-T10-10 - Clearwell Tank										3															
EQT317	ASU-T10-11 - Filter Backwash Holding Tank										3															
EQT318	ASU-T10-12 - Primary Sludge Thickener										3															
EQT319	ASU-T10-13 - Thickener Supernatant Tank										3															
EQT320	ASU-T10-18 - Ammonia Water Tank										3															
EQT321	ASU-T10-20A - Filter Area Tank and Sump										3															
EQT322	ASU-T10-21 - Effluent Holding Tank										3															
EQT323	ASU-T10-23 - Secondary Sludge Thickener										3															
EQT324	ASU-T10-24 - Secondary Sludge Thickener										3															
EQT325	ASU-T10-25 - Thickener Supernatant Tank										3															
EQT326	ASU-T10-61 - DAF Feed Tank										3															
EQT327	ASU-T10-62 - Coagulation Tank										3															

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

ETHYLENE UNIT – ACTIVATED SLUDGE UNIT – STEAM UNIT
LAKE CHARLES CHEMICAL COMPLEX
AGENCY INTEREST NO. 3271
SASOL NORTH AMERICA INC.
WESTLAKE, CALCASIEU PARISH, LOUISIANA

X. Applicable Louisiana and Federal Air Quality Requirements

ID No.:	Description	40 CFR 60 NSPS						40 CFR 61						40 CFR 63 NESHAP						40 CFR							
		A	D	Db	Dc	Kb	VW	NNN	RRR	YYY	A	M	FF	A	G	H	Q	SS	UU	WW	XX	YY	4F	5D	68	82	
EQT328	ASU-T10-63 - Floatation Tank										3																
EQT329	ASU-T10-64 - DAF Effluent Tank										3																
EQT330	ASU-T10-65 - DAF Float Tank										3																
EQT331	ASU-T6-227 - Black Tank										3																
EQT332	ASU-T6-249 - Black Tank										3																
EQT333	ASU-T6-903 - Press Feed Tank (FB-926)										3																
EQT334	ASU-T6-904 - Oily Solids Wastewater Tank (FB-927)										3																
EQT335	FA-251 - Quench Surge Tank										3																
EQT336	FA-252 - Quench Off-Gas Knock-Out Pot																										
EQT337	FA-253 - Quench Reactor											3															
EQT338	FB-254 - Quench Solid Settling Tank											3															
EQT339	ALC - Alcohol Unit Fuel Gas System																										
EQT379	ASU-SL-91 - Storm Water Diversion Pond - South											3															
EQT380	ASU-SFSB-250B - Sand Filter Setting Basin - South																										
EQT381	ASU-T10-20B - Filter Area Tank and Sump										3																1
EQT382	ETH-BA-101 - Ethylene Cracking Furnace											3															1
EQT383	ETH-BA-102 - Ethylene Cracking Furnace											3															1
EQT384	ETH-BA-103 - Ethylene Cracking Furnace											3															1
EQT385	ETH-BA-104 - Ethylene Cracking Furnace											3															1

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

ETHYLENE UNIT – ACTIVATED SLUDGE UNIT – STEAM UNIT
LAKE CHARLES CHEMICAL COMPLEX
AGENCY INTEREST NO. 3271
SASOL NORTH AMERICA INC.
WESTLAKE, CALCASIEU PARISH, LOUISIANA

X. Applicable Louisiana and Federal Air Quality Requirements

ID No.:	Description	40 CFR 60 NSPS						40 CFR 61						40 CFR 63 NESHAAP						40 CFR						
		A	D	Db	Dc	Kb	VV	NNN	RRR	YYY	A	M	FF	A	G	H	Q	SS	UU	WW	XX	YY	4F	5D	68	82
EQT386	ETH-BA-105 - Ethylene Cracking Furnace							3																	1	
EQT387	ETH-BA-106 - Ethylene Cracking Furnace							3																	1	
EQT388	ETH-BA-107 - Ethylene Cracking Furnace							3																	1	
EQT389	ETH-BA-201 - Feed Dryer Regenerator							3																	1	
EQT390	ETH-BA-401 - Acetylene / Propadiene Converter Regenerator																									
EQT391	ETH-CT-201 - North Ethylene Cooling Tower										1			3										1		
EQT392	ETH-EGF - Enclosed Ground Flare	1									1			1											1	
EQT393	ETH-F-501 - Ethylene Unit Elevated Flare	1									1			1											1	
EQT394	ETH-FA-403V - Acetylene / Propadiene Converter										1			1											3	
EQT395	ETH-FB-207 - Caustic Sewer Sump							3																		
EQT396	ETH-FB-215 - Compressor Wash Oil Tank FB-253							3																	3	
EQT397	ETH-FB-253 - Sulfide Caustic Storage Tank FB-253								3																1	
EQT398	ETH-FB-801 - Methanol / Propanol Storage Tank									3															3	
EQT399	ETH-FB-802 - Compressor Wash Oil Day Tank									3															3	
EQT400	ETH-LR-4 - Ethylene Loading Rack										3														1	

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

ETHYLENE UNIT – ACTIVATED SLUDGE UNIT – STEAM UNIT
LAKE CHARLES CHEMICAL COMPLEX
AGENCY INTEREST NO. 3271
SASOL NORTH AMERICA INC.
WESTLAKE, CALCASIEU PARISH, LOUISIANA

X. Applicable Louisiana and Federal Air Quality Requirements

ID No.:	Description	40 CFR 60 NSPS												40 CFR 61												40 CFR	
		A	D	Db	Dc	Kb	VW	NNN	RRR	YYY	A	M	FF	A	G	H	Q	SS	UU	WW	XX	YY	4F	5D	68	82	
EQT401	ETH-LR-4A - Sulfide Caustic Loading Station																										
EQT402	ETH-T7-903 - Injection Oil Tank	3																									
EQT403	ETH-T7-913 - HAD / Oil Tank	3																									
EQT404	ETH-T7-914 - North Wastewater Tank	3																									
EQT405	ETH-T7-915 - South Wastewater Tank	3																									
EQT406	ETH-T7-916 - Wastewater Tank	3																									
EQT407	ETH-T7-929 - Sulfide Caustic Tank	1																									
EQT408	ETH-WW - Ethylene Unit Wastewater Sources																										
EQT409	ETH-Y7-902 - South Ethylene Cooling Tower																										
EQT414	ETH-D7-113 - MEROX Storage Tank	3																									
EQT415	ETH-DA-401 - Demethanizer																										
EQT416	ETH-DA-402 - Deethanizer																										
EQT417	ETH-DA-403 - Ethylene Fractionator Rectifier Tower																										
EQT418	ETH-DA-404 - Depropanizer																										
EQT419	ETH-DA-405 - Ethylene Fractionator Stripper Tower																										
EQT420	ETH-DA-407 - Debutanizer																										

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

ETHYLENE UNIT – ACTIVATED SLUDGE UNIT – STEAM UNIT
LAKE CHARLES CHEMICAL COMPLEX
AGENCY INTEREST NO. 3271
SASOL NORTH AMERICA INC.
WESTLAKE, CALCASIEU PARISH, LOUISIANA

X. Applicable Louisiana and Federal Air Quality Requirements

ID No.:	Description	40 CFR 60 NSPS						40 CFR 61						40 CFR 63 NESHA ^P						40 CFR						
		A	D	Db	Dc	Kb	VV	NNN	RRR	YYY	A	M	FF	A	G	H	Q	SS	UU	WW	XX	YY	4F	5D	68	82
EQT421	ETH-DA-408 - Demethanizer Overhead Rectifier						3																		3	
EQT422	ETH-FA-414A - Propadiene Converter																									
EQT423	ETH-FA-414B - Propadiene Converter																									
EQT424	ETH-D7-1005 - Flare Stack Condensate Knock Out Pot HA-900																									
EQT425	ETH-D7-901 - Mixed C4 (Butadiene) Storage Bullet						3																			
EQT426	ETH-D7-902 - Mixed C4 (Butadiene) Storage Bullet						3																			3
EQT427	ETH-D7-903 - Propylene Storage Bullet						3																			3
EQT428	ETH-D7-922 - Propane/Propylene Storage Bullet						3																			3
EQT429	ETH-D7-927 - Propane/Propylene Storage Bullet						3																			3
EQT430	ETH-D7-946 - Heavy Aromatic Distillate Storage Bullet						3																			1
EQT431	ETH-D7-947 - Sulfide Caustic / Oil Separation Drum						3																			1
EQT432	ETH-D7-952 - Degassing Pot																									1
EQT433	ETH-D7-983 - Off-Sites Low Pressure Wet Flare Header Knockout Drum																									1

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

**ETHYLENE UNIT - ACTIVATED SLUDGE UNIT - STEAM UNIT
LAKE CHARLES CHEMICAL COMPLEX**
AGENCY INTEREST NO. 3271
SASOL NORTH AMERICA INC.
WESTLAKE, CALCASIEU PARISH, LOUISIANA

X. Applicable Louisiana and Federal Air Quality Requirements

ID No.:	Description	40 CFR 60 NSPS										40 CFR 61										40 CFR 63 NESHAP										40 CFR			
		A	D	Db	Dc	Kb	W	MNN	RFF	YYY	A	M	FF	A	G	H	Q	SS	UU	WW	XX	YY	4F	5D	68	82									
EQT434	ETH-D7-984 - Off-Sites Low Pressure Wet Flare Header Knockout Transfer Pot										1			1	1	1							1												
EQT435	ETH-FA-801 - Wet Flare Drum D7-801										1			1	1	1							1												
EQT436	ETH-FB-803 - Methanol / Propanol Storage Tank										3												3												
EQT437	ETH-HA-103 - MEROK Day Tank										3												3												
EQT438	ETH-HA-104 - MEROK Satellite Tank										3												3												
EQT439	ETH-HA-203 - Caustic Tower Degassing Pot																						3												
EQT440	ETH-HA-204 - Water Wash Pot for Caustic Tower																						3												
EQT441	ETH-W7-901 - Benzene Stripper											1			1	1	1						1												
EQT442	ETH-FA-403A - Acetylene Converter											3											3												
EQT443	ETH-FA-403B - Acetylene Converter											3											3												
EQT444	ETH-FA-403C - Acetylene Converter											3											3												
EQT445	ETH-T7-901 - Light Aromatic Concentrate Storage Bullet										3												3												
EQT446	ETH-T7-975 - Tank T7-975																						1												
EQT448	ETH-D-414A - Propadiene Converter											3											3												
EQT449	ETH-D-414B - Propadiene Converter											3											3												
EQT450	ETH-WHRB - Ethylene Furnaces Waste Heat Recovery Boiler										3												3												

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

**ETHYLENE UNIT - ACTIVATED SLUDGE UNIT - STEAM UNIT
LAKE CHARLES CHEMICAL COMPLEX
AGENCY INTEREST NO. 3271
SASOL NORTH AMERICA INC.
WESTLAKE, CALCASIEU PARISH, LOUISIANA**

X. Applicable Louisiana and Federal Air Quality Requirements

ID No.:	Description	40 CFR 60 NSPS						40 CFR 61						40 CFR 63 NESHAP						40 CFR					
		A	D	Db	Dc	Kb	W	NNN	RRR	YYY	A	M	FF	A	G	H	Q	SS	UU	WW	XX	YY	4F	5D	68
FUG002	STM-FE-1 - Steam Unit Fugitives																								
FUG006	ASU-FE-1 - Active Sludge Unit Fugitive																								
FUG008	ETH-FE-1-E - Ethylene Unit Fugitive																								
GRP042	ETH-CAP - Ethylene Cracking Furnaces Cap																								
GRP043	STM-CAP - Utility Steam Boilers Cap																								
GRP044	ETH-FLARE - Ethylene Unit Flare Cap																								
GRP045	ETH-WAOF - Wet Air Oxidation Feed Tanks																								
GRP046	ETH-WWTKS - Wastewater Tanks Cap																								
GRP047	Active Sludge Unit - Ethylene Unit - Steam Unit																								

KEY TO MATRIX

- 1 - The regulations have applicable requirements which apply to this particular emission source.
 - The emission source may have an exemption from control stated in the regulation. The emission source may not have to be controlled but may have monitoring, recordkeeping, or reporting requirements.
 - 2 - The regulations have applicable requirements which apply to this particular emission source but the source is currently exempt from these requirements due to meeting a specific criteria, such as it has not been constructed, modified or reconstructed since the regulations have been in place. If the specific criteria changes the source will have to comply at a future date.
 - 3 - The regulations apply to this general type of emission source (i.e. vents, furnaces, and fugitives) but do not apply to this particular emission source.
- Blank - The regulations clearly do not apply to this type of emission source.
- 4F - 40 CFR 63 Subpart FFFF
- 5D - 40 CFR 63 Subpart DDDDD

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

ETHYLENE UNIT – ACTIVATED SLUDGE UNIT – STEAM UNIT
LAKE CHARLES CHEMICAL COMPLEX
AGENCY INTEREST NO. 3271
SASOL NORTH AMERICA INC.
WESTLAKE, CALCASIEU PARISH, LOUISIANA

XI. Explanation for Exemption Status or Non-Applicability of a Source

ID No:	Requirement	Status	Citation	Explanation
EQT020, EQT021, EQT022	LAC 33:III.1511 CEM for SO ₂ LAC 33:III.1503.C. Emission Standards for Sulfur Dioxide	Exempt Exempt	LAC 33:III.1511.A LAC 33:III.1503.C	SO ₂ emissions < 100 tons/year SO ₂ emissions < 250 tons/year
	NSPS Subpart D and Db	Does not apply	40 CFR 60.40	No construction/modification after August 17, 1971
EQT024	LAC 33:III.2103 – Storage of VOC NSPS Subpart Kb for Storage Tanks	Does not apply Does not apply	LAC 33:III.2103.A 40 CFR 60.110b(a)	Vapor Pressure < 1.5 psia Tank volume and/or vapor pressure are below the applicability threshold
EQT295, EQT379, EQT381 EQT298 thru EQT300 EQT303 thru EQT319 EQT321 thru EQT334	LAC 33:III.2103 – Storage of VOC NSPS Subpart Kb for Storage Tanks	Does not apply	LAC 33:III.2103.A	Vapor Pressure < 1.5 psia
EQT296 EQT297 EQT320	LAC 33:III.2103 – Storage of VOC LAC 33:III.5109 – MACT requirements NSPS Subpart Kb for Storage Tanks	Does not apply Does not apply Does not apply	40 CFR 60.110b(a) LAC 33:III.2103.A LAC 33:III.5109.B	Tank volume and/or vapor pressure are below the applicability threshold Vapor Pressure < 1.5 psia MACT is not required for Class III TAPs
EQT301	LAC 33:III.2109 –Oil/Water Separation NSPS Subpart Kb for Storage Tanks	Does not apply Does not apply	40 CFR 60.110b(a) LAC 33:III.2103.A	Tank volume and/or vapor pressure are below the applicability threshold Vapor Pressure < 1.5 psia
EQT335, EQT338 EQT337	LAC 33:III.2147 –VOC emissions from SOCMI reactors 40 CFR 60 Subpart RRR	Does not apply Does not apply	40 CFR 60.111b LAC 33:III.2147	Process Tanks Not a SOCMI Unit
EQT382, EQT383, EQT384 EQT385, EQT386, EQT387 EQT388	LAC 33:III.1511 CEM for SO ₂ LAC 33:III.1503.C. Emission Standards for Sulfur Dioxide LAC 33:III.2147 Control of Emissions of Organic Compounds NSPS Subpart RRR for reactors	Exempt Exempt	LAC 33:III.1511.A LAC 33:III.1503.C LAC 33:III.2147 Does not apply	SO ₂ emissions < 100 tons/year SO ₂ emissions < 250 tons/year Does not discharge to the atmosphere Does not apply
		Does not apply	40 CFR 60.701	Does not discharge to the atmosphere

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

**ETHYLENE UNIT – ACTIVATED SLUDGE UNIT – STEAM UNIT
LAKE CHARLES CHEMICAL COMPLEX
AGENCY INTEREST NO. 3271
SASOL NORTH AMERICA INC.
WESTLAKE, CALCASIEU PARISH, LOUISIANA**

XI. Explanation for Exemption Status or Non-Applicability of a Source

ID No:	Requirement	Status	Citation	Explanation
	40 CFR 63 Subpart YY Standards	Does not apply	40 CFR 63.1103(e)	The furnaces are affected source without any applicable standards
EQT389, EQT390 EQT392, EQT393	LAC 33:III.1511 CEM for SO ₂ LAC 33:III.1503.C. Emission Standards for Sulfur Dioxide	Exempt Exempt	LAC 33:III.1511.A LAC 33:III.1503.C	SO ₂ emissions < 100 tons/year SO ₂ emissions < 250 tons/year
EQT391, EQT409	40 CFR 63 Subpart Q for Cooling Towers	Does not apply	40 CFR 63.400	No chromium based water treatment chemicals are used
EQT394	LAC 33:III.2115 Waste Gas Disposal NESHAP Subpart YY	Does not apply Does not apply	LAC 33:III.2115.H.1.c 40 CFR 63.1103(e)(2)	VOC emissions < 100 lbs/24 hours Does not meet the definition of a process vent
EQT395	NSPS Subpart Kb for Storage Tanks	Does not apply	40 CFR 60.110b(a)	Tank volume and/or vapor pressure are below the applicability threshold
EQT396	LAC 33:III.2103 – Storage of VOC NSPS Subpart Kb for Storage Tanks NESHAP Subpart YY	Does not apply Does not apply Does not apply	LAC 33:III.2103.A 40 CFR 60.110b(a) 40 CFR 63.1103(e)	Vapor Pressure < 1.5 psia No construction after July 23, 1984 Tank volume < 25,132 gallons
EQT397, EQT403, EQT404 EQT405 EQT398, EQT436, EQT438	LAC 33:III.2103 – Storage of VOC NSPS Subpart Kb for Storage Tanks NSPS Subpart Kb for Storage Tanks NESHAP Subpart YY LAC 33:III.5109 – MACT requirements	Does not apply Does not apply Does not apply Does not apply Does not apply	LAC 33:III.2103.A 40 CFR 60.110b(a) 40 CFR 60.110b(a) 40 CFR 63.1103(e) LAC 33:III.5109.B	Vapor Pressure < 1.5 psia No construction after July 23, 1984 Tank volume and/or vapor pressure are below the applicability threshold Tank volume < 25,132 gallons MACT is not required for Class III TAPs
EQT399, EQT402	LAC 33:III.2103 – Storage of VOC NSPS Subpart Kb for Storage Tanks NESHAP Subpart YY NSPS Subpart Kb for Storage Tanks LAC 33:III.2103 – Storage of VOC	Does not apply Does not apply Does not apply Does not apply Does not apply	LAC 33:III.2103.A 40 CFR 60.110b(a) 40 CFR 63.1103(e) 40 CFR 63.110(b)(1) LAC 33:III.2103.A	Vapor Pressure < 1.5 psia No construction after July 23, 1984 Vapor Pressure < 0.51 psia Subject to 40 CFR 63 Subpart G Vapor Pressure < 1.5 psia

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

ETHYLENE UNIT – ACTIVATED SLUDGE UNIT – STEAM UNIT
 LAKE CHARLES CHEMICAL COMPLEX
 AGENCY INTEREST NO. 3271
 SASOL NORTH AMERICA INC.
 WESTLAKE, CALCASIEU PARISH, LOUISIANA

XI. Explanation for Exemption Status or Non-Applicability of a Source

ID No:	Requirement	Status	Citation	Explanation
EQT408	LAC 33:III.2153 - Control of Emissions of Organic Compounds	Does not apply	LAC 33:III.2153	Subject to 40 CFR 61 Subpart FF
EQT414	NSPS Subpart Kb for Storage Tanks	Does not apply	40 CFR 60.110b(a)	Tank volume and/or vapor pressure are below the applicability threshold
	NESHAP Subpart YY	Does not apply	40 CFR 63.1101	Does not meet the definition of a storage vessel
EQT415, EQT416, EQT417 EQT418, EQT419, EQT420 EQT421	LAC 33:III.2147 Control of Emissions of Organic Compounds NSPS Subpart NNN for distillation operations NESHAP Subpart YY	Does not apply	LAC 33:III.2147	Vents are routed to the fuel gas system
EQT425, EQT426, EQT427 EQT428, EQT429	NSPS Subpart Kb for Storage Tanks NESHAP Subpart YY	Does not apply	40 CFR 60.660(b)(1)	Vents are routed to the fuel gas system
EQT430	NSPS Subpart Kb for Storage Tanks	Does not apply	40 CFR 63.1103(e)(2)	Does not meet the definition of a process vent
EQT431	NSPS Subpart Kb for Storage Tanks	Does not apply	40 CFR 60.111b	No construction after July 23, 1984
EQT432	LAC 33:III.2115 Waste Gas Disposal	Does not apply	LAC 33:III.2115	Does not meet the definition of a storage vessel
EQT437	LAC 33:III.2103 – Storage of VOC LAC 33:III.5109 – MACT requirements	Does not apply	LAC 33:III.2103.A LAC 33:III.5109.B	No construction after July 23, 1984 Process Tanks Subject to 40 CFR 61 Subpart FF
	NSPS Subpart Kb for Storage Tanks	Does not apply	40 CFR 60.110b(a)	Volume < 250 gallons
	NESHAP Subpart YY	Does not apply	40 CFR 63.1103(e)	MACT is not required for Class III TAPs
	LAC 33:III.2115 Waste Gas Disposal	Does not apply	40 CFR 63.1103(e)	Tank volume and/or vapor pressure are below the applicability threshold
EQT439, EQT440	NESHAP Subpart YY LAC 33:III.2115 Waste Gas Disposal	Does not apply	LAC 33:III.2115	Subject to LAC 33:III.5.09A
EQT441	NESHAP Subpart YY LAC 33:III.2115 Waste Gas Disposal	Does not apply	40 CFR 63.1103(e)(2)	Does not meet the definition of a process vent
	LAC 33:III.2115 Waste Gas Disposal	Does not apply	LAC 33:III.2115	Subject to LAC 33:III.5109A

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

ETHYLENE UNIT – ACTIVATED SLUDGE UNIT – STEAM UNIT
LAKE CHARLES CHEMICAL COMPLEX
AGENCY INTEREST NO. 3271
SASOL NORTH AMERICA INC.
WESTLAKE, CALCASIEU PARISH, LOUISIANA

XI Explanation for Exemption Status or Non-Applicability of a Source

ID No:	Requirement	Status	Citation	Explanation
EQT442, EQT443, EQT444	NSPS Subpart RRR for reactors NESHAP Subpart YY	Does not apply	40 CFR 60.701 40 CFR 63.1103(e)(2)	Does not discharge to the atmosphere Does not meet the definition of a process vent
EQT448, EQT449		Does not apply	40 CFR 60.110b(a)	No construction after July 23, 1984
EQT445	NSPS Subpart Kb for Storage Tanks NESHAP Subpart YY	Does not apply	40 CFR 63.1101	Working Pressure > 204.9 kPa
EQT450	NSPS Subpart Db for boilers	Does not apply	40 CFR 60.40b	Does not meet the definition of a boiler
GRP035	LAC 33:III.2153 for VOC emissions from wastewater	Does not apply	LAC 33:III.2153.A	VOC concentration in wastewater < 1000 ppmw

The above table provides explanation for both the exemption status or non-applicability of a source cited by 2 or 3 in the matrix presented in Section X of this permit

40 CFR PART 70 GENERAL CONDITIONS

- A. The term of this permit shall be five (5) years from date of issuance. An application for a renewal of this 40 CFR Part 70 permit shall be submitted to the administrative authority no later than six months prior to the permit expiration date. Should a complete permit application not be submitted six months prior to the permit expiration date, a facility's right to operate is terminated pursuant to 40 CFR Section 70.7(c)(ii). Operation may continue under the conditions of this permit during the period of the review of the application for renewal. [LAC 33:III.507.E.1, E.3, E.4, reference 40 CFR 70.6(a)(2)]
- B. The conditions of this permit are severable; and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby. [Reference 40 CFR 70.6(a)(5)]
- C. Permittee shall comply with all conditions of the 40 CFR Part 70 permit. Any permit noncompliance constitutes a violation of the Clean Air Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. This permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. [LAC 33:III.507.B.2, reference 40 CFR 70.6(a)(6)(i) & (iii)]
- D. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. [Reference 40 CFR 70.6(a)(6)(ii)]
- E. This permit does not convey any property rights of any sort, or an exclusive privilege. [Reference 40 CFR 70.6(a)(6)(iv)]
- F. The permittee shall furnish to the permitting authority, within a reasonable time, any information that the permitting authority may request in writing to determine whether cause exists for modifying, revoking, and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the permitting authority copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality. A claim of confidentiality does not relieve the permittee of the requirement to provide the information. [LAC 33:III.507.B.2, 517.F, reference 40 CFR 70.6(a)(6)(v)]
- G. Permittee shall pay fees in accordance with LAC 33:III.Chapter 2 and 40 CFR Section 70.6(a)(7). [LAC 33:III.501.C.2, reference 40 CFR 70.6(a)(7)]
- H. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the permitting authority or authorized representative to perform the following:
 - 1. enter upon the permittee's premises where a 40 CFR Part 70 source is located or emission-related activity is conducted, or where records must be kept under the conditions of the permit [LAC 33:III.507.H.2, reference 40 CFR 70.6(c)(2)(i)];

40 CFR PART 70 GENERAL CONDITIONS

2. have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit [LAC 33:III.507.H.2, reference 40 CFR 70.6(c)(2)(ii)];
 3. inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit [LAC 33:III.507.H.2, reference 40 CFR 70.6(c)(2)(iii)]; and
 4. as authorized by the Clean Air Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. [LAC 33:III.507.H.2, reference 40 CFR 70.6(c)(2)(iv)]
- I. All required monitoring data and supporting information shall be kept available for inspection at the facility or alternate location approved by the agency for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application. Supporting information includes calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and all reports required by the permit.
[Reference 40 CFR 70.6(a)(3)(ii)(B)]
- J. Records of required monitoring shall include the following:
1. the date, place as defined in the permit, and time of sampling or measurements;
 2. the date(s) analyses were performed;
 3. the company or entity that performed the analyses;
 4. the analytical techniques or methods used;
 5. the results of such analyses; and
 6. the operating conditions as existing at the time of sampling or measurement.
- [Reference 40 CFR 70.6(a)(3)(ii)(A)]
- K. Permittee shall submit at least semiannually, reports of any required monitoring, clearly identifying all instances of deviations from permitted monitoring requirements, certified by a responsible company official. For previously reported deviations, in lieu of attaching the individual deviation reports, the semiannual report may clearly reference the communication(s)/correspondence(s) constituting the prior report, including the date the prior report was submitted. The semiannual reports shall be submitted to the Office of Environmental Compliance, Surveillance Division by March 31 for the preceding period encompassing July through December and September 30 for the preceding period encompassing January through June. Any quarterly deviation report required to be submitted by March 31 or September 30 in accordance with Part 70 General Condition R may be consolidated with the semi-annual reports required by this general condition as long as the report clearly indicates this and all required information is included and clearly delineated in the consolidated report. [LAC 33:III.507.H, reference 40 CFR 70.6(a)(3)(iii)(A)]
- L. The permittee shall submit at least semiannual reports on the status of compliance pursuant to 40 CFR Section 70.5 (c) (8) and a progress report on any applicable schedule of compliance pursuant to 40 CFR Section 70.6 (c) (4). [LAC 33:III.507.H.1, reference 40 CFR 70.6(c)(4)]
- M. Compliance certifications per LAC 33:III.507.H.5 shall be submitted to the Administrator as well as the permitting authority. For previously reported compliance deviations, in lieu of attaching the

40 CFR PART 70 GENERAL CONDITIONS

individual deviation reports, the annual report may clearly reference the communication(s)/correspondence(s) constituting the prior report, including the date the prior report was submitted. The compliance certifications shall be submitted to the Office of Environmental Compliance, Surveillance Division by March 31 for the preceding calendar year. [LAC 33:III.507.H.5, reference 40 CFR 70.6(c)(5)(iv)]

- N. If the permittee seeks to reserve a claim of an affirmative defense as provided in LAC 33:III.507.J.2, the permittee shall, in addition to any emergency or upset provisions in any applicable regulation, notify the permitting authority within 2 working days of the time when emission limitations were exceeded due to the occurrence of an upset. In the event of an upset, as defined under LAC 33:III.507.J, which results in excess emissions, the permittee shall demonstrate through properly signed, contemporaneous operating logs, or other relevant evidence that: 1) an emergency occurred and the cause was identified; 2) the permitted facility was being operated properly at the time; and 3) during the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standard or requirement of the permit. [LAC 33:III.507.J.2, reference 40 CFR 70.6(g)(3)(iv) & (i-iii)]
- O. Permittee shall maintain emissions at a level less than or equal to that provided for under the allowances that the 40 CFR Part 70 source lawfully holds under Title IV of the Clean Air Act or the regulations promulgated thereunder. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the acid rain program, provided that such increases do not require a permit revision under any other applicable requirement. No limit shall be placed on the number of allowances held by the source. The source may not, however, use allowances as a defense to noncompliance with any other applicable requirement. Any such allowance shall be accounted for according to the procedures established in regulations promulgated under Title IV of the Clean Air Act. [Reference 40 CFR 70.6(a)(4)]
- P. Any permit issued pursuant to 40 CFR Part 70 may be subject to reopening prior to the expiration of the permit for any of the conditions specified in 40 CFR Section 70.7(f) or LAC 33:III.529. [LAC 33:III.529.A-B, reference 40 CFR 70.7(f)]
- Q. Permittee may request an administrative amendment to the permit to incorporate test results from compliance testing if the following criteria are met:
 - 1. the changes are a result of tests performed upon start-up of newly constructed, installed, or modified equipment or operations;
 - 2. increases in permitted emissions will not exceed five tons per year for any regulated pollutant;
 - 3. increases in permitted emissions of Louisiana toxic air pollutants or of federal hazardous air pollutants would not constitute a modification under LAC 33:III. Chapter 51 or under Section 112 (g) of the Clean Air Act;
 - 4. changes in emissions would not require new source review for prevention of significant deterioration or nonattainment and would not trigger the applicability of any federally applicable requirement;
 - 5. changes in emissions would not qualify as a significant modification; and

40 CFR PART 70 GENERAL CONDITIONS

6. the request is submitted no later than 12 months after commencing operation. [LAC 33:III.523.A, reference 40 CFR 70.7(d)]
- R. Permittee shall submit prompt reports of all permit deviations as specified below to the Office of Environmental Compliance, Surveillance Division. All such reports shall be certified by a responsible official in accordance with 40 CFR 70.5(d).
 1. A written report shall be submitted within 7 days of any emission in excess of permit requirements by an amount greater than the Reportable Quantity established for that pollutant in LAC 33.I.Chapter 39.
 2. A written report shall be submitted within 7 days of the initial occurrence of any emission in excess of permit requirements, regardless of the amount, where such emission occurs over a period of seven days or longer.
 3. A written report shall be submitted quarterly to address all permit deviations not included in paragraphs 1 or 2 above. Unless required by an applicable reporting requirement, a written report is not required during periods in which there is no deviation. The quarterly deviation reports submitted on March 31 and September 30 may be consolidated with the semi-annual reports required by Part 70 General Condition K as long as the report clearly indicates this and all required information is included and clearly delineated in the consolidated report. For previously reported permit deviations, in lieu of attaching the individual deviation reports, the quarterly report may clearly reference the communication(s)/correspondence(s) constituting the prior report, including the date the prior report was submitted. The schedule for submittal of quarterly reports shall be no later than the dates specified below for any permit deviations occurring during the corresponding specified calendar quarter:
 - a. Report by June 30 to cover January through March
 - b. Report by September 30 to cover April through June
 - c. Report by December 31 to cover July through September
 - d. Report by March 31 to cover October through December
 4. Any written report submitted in advance of the timeframes specified above, in accordance with an applicable regulation, may serve to meet the reporting requirements of this condition provided such reports are certified in accordance with 40 CFR 70.5(d) and contain all information relevant to the permit deviation. Reporting under this condition does not relieve the permittee from the reporting requirements of any applicable regulation, including LAC 33.I.Chapter 39, LAC 33.III.Chapter 9, and LAC 33.III.5107. [Reference 40 CFR 70.6(a)(3)(iii)(B)]
- S. Permittee shall continue to comply with applicable requirements on a timely basis, and will meet on a timely basis applicable requirements that become effective during the permit term. [Reference 40 CFR 70.5(c)(8)(iii)]

40 CFR PART 70 GENERAL CONDITIONS

- T. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
 - 1. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156;
 - 2. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158;
 - 3. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161;
 - 4. Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with recordkeeping requirements pursuant to 40 CFR 82.166. ("MVAC-like appliance" as defined at 40 CFR 82.152);
 - 5. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to 40 CFR 82.156; and
 - 6. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166. [Reference 40 CFR 82, Subpart F]
- U. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR Part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.

The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant. [Reference 40 CFR 82, Subpart B]

- V. Data availability for continuous monitoring or monitoring to collect data at specific intervals: Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities (including calibration checks and required zero and span adjustments), the permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the emissions unit is operating. For purposes of reporting monitoring deviations under Part 70 General Conditions K and R, and unless otherwise provided for in the Specific Requirements (or Table 3) of this permit, the minimum degree of data availability shall be at least 90% (based on a monthly average) of the operating time of the emissions unit or activity being monitored. This condition does not apply to Leak Detection and Repair (LDAR) programs for fugitive emissions (e.g., 40 CFR 60 Subpart VV, 40 CFR 63 Subpart H).

LOUISIANA AIR EMISSION PERMIT GENERAL CONDITIONS

- I. This permit is issued on the basis of the emissions reported in the application for approval of emissions and in no way guarantees that the design scheme presented will be capable of controlling the emissions to the type and quantities stated. Failure to install, properly operate and/or maintain all proposed control measures and/or equipment as specified in the application and supplemental information shall be considered a violation of the permit and LAC 33:III.501. If the emissions are determined to be greater than those allowed by the permit (e.g. during the shakedown period for new or modified equipment) or if proposed control measures and/or equipment are not installed or do not perform according to design efficiency, an application to modify the permit must be submitted. All terms and conditions of this permit shall remain in effect unless and until revised by the permitting authority.
- II. The permittee is subject to all applicable provisions of the Louisiana Air Quality Regulations. Violation of the terms and conditions of the permit constitutes a violation of these regulations.
- III. The Emission Rates for Criteria Pollutants, Emission Rates for TAP/HAP & Other Pollutants, and Specific Requirements sections or, where included, Emission Inventory Questionnaire sheets establish the emission limitations and are a part of the permit. Any operating limitations are noted in the Specific Requirements or, where included, Tables 2 and 3 of the permit. The synopsis is based on the application and Emission Inventory Questionnaire dated March 22, 2006.
- IV. This permit shall become invalid, for the sources not constructed, if:
 - A. Construction is not commenced, or binding agreements or contractual obligations to undertake a program of construction of the project are not entered into, within two (2) years (18 months for PSD permits) after issuance of this permit, or;
 - B. If construction is discontinued for a period of two (2) years (18 months for PSD permits) or more.The administrative authority may extend this time period upon a satisfactory showing that an extension is justified.
This provision does not apply to the time period between construction of the approved phases of a phased construction project. However, each phase must commence construction within two (2) years (18 months for PSD permits) of its projected and approved commencement date.
- V. The permittee shall submit semiannual reports of progress outlining the status of construction, noting any design changes, modifications or alterations in the construction schedule which have or may have an effect on the emission rates or ambient air quality levels. These reports shall continue to be submitted until such time as construction is certified as being complete. Furthermore, for any significant change in the design, prior approval shall be obtained from the Office of Environmental Services, Air Permits Division.
- VI. The permittee shall notify the Department of Environmental Quality, Office of Environmental Services, Air Permits Division within ten (10) calendar days from the date that construction is certified as complete and the estimated date of start-up of operation. The appropriate Regional Office shall also be so notified within the same time frame.

LOUISIANA AIR EMISSION PERMIT GENERAL CONDITIONS

- VII. Any emissions testing performed for purposes of demonstrating compliance with the limitations set forth in paragraph III shall be conducted in accordance with the methods described in the Specific Conditions and, where included, Tables 1, 2, 3, 4, and 5 of this permit. Any deviation from or modification of the methods used for testing shall have prior approval from the Office of Environmental Assessment, Air Quality Assessment Division.
- VIII. The emission testing described in paragraph VII above, or established in the specific conditions of this permit, shall be conducted within sixty (60) days after achieving normal production rate or after the end of the shakedown period, but in no event later than 180 days after initial start-up (or restart-up after modification). The Office of Environmental Assessment, Air Quality Assessment Division shall be notified at least (30) days prior to testing and shall be given the opportunity to conduct a pretest meeting and observe the emission testing. The test results shall be submitted to the Air Quality Assessment Division within sixty (60) days after the complete testing. As required by LAC 33:III.913, the permittee shall provide necessary sampling ports in stacks or ducts and such other safe and proper sampling and testing facilities for proper determination of the emission limits.
- IX. The permittee shall, within 180 days after start-up and shakedown of each project or unit, report to the Office of Environmental Compliance, Surveillance Division any significant difference in operating emission rates as compared to those limitations specified in paragraph III. This report shall also include, but not be limited to, malfunctions and upsets. A permit modification shall be submitted, if necessary, as required in Condition I.
- X. The permittee shall retain records of all information resulting from monitoring activities and information indicating operating parameters as specified in the specific conditions of this permit for a minimum of at least five (5) years.
- XI. If for any reason the permittee does not comply with, or will not be able to comply with, the emission limitations specified in this permit, the permittee shall provide the Office of Environmental Compliance, Surveillance Division with a written report as specified below.
- A. A written report shall be submitted within 7 days of any emission in excess of permit requirements by an amount greater than the Reportable Quantity established for that pollutant in LAC 33.I.Chapter 39.
 - B. A written report shall be submitted within 7 days of the initial occurrence of any emission in excess of permit requirements, regardless of the amount, where such emission occurs over a period of seven days or longer.
 - C. A written report shall be submitted quarterly to address all emission limitation exceedances not included in paragraphs A or B above. The schedule for submittal of quarterly reports shall be no later than the dates specified below for any emission limitation exceedances occurring during the corresponding specified calendar quarter:
 1. Report by June 30 to cover January through March
 2. Report by September 30 to cover April through June
 3. Report by December 31 to cover July through September
 4. Report by March 31 to cover October through December

**LOUISIANA AIR EMISSION PERMIT
GENERAL CONDITIONS**

- D. Each report submitted in accordance with this condition shall contain the following information:
1. Description of noncomplying emission(s);
 2. Cause of noncompliance;
 3. Anticipated time the noncompliance is expected to continue, or if corrected, the duration of the period of noncompliance;
 4. Steps taken by the permittee to reduce and eliminate the noncomplying emissions; and
 5. Steps taken by the permittee to prevent recurrences of the noncomplying emissions.
- E. Any written report submitted in advance of the timeframes specified above, in accordance with an applicable regulation, may serve to meet the reporting requirements of this condition provided all information specified above is included. For Part 70 sources, reports submitted in accordance with Part 70 General Condition R shall serve to meet the requirements of this condition provided all specified information is included. Reporting under this condition does not relieve the permittee from the reporting requirements of any applicable regulation, including LAC 33.I.Chapter 39, LAC 33.III.Chapter 9, and LAC 33.III.5107.
- XII. Permittee shall allow the authorized officers and employees of the Department of Environmental Quality, at all reasonable times and upon presentation of identification, to:
- A. Enter upon the permittee's premises where regulated facilities are located, regulated activities are conducted or where records required under this permit are kept;
 - B. Have access to and copy any records that are required to be kept under the terms and conditions of this permit, the Louisiana Air Quality Regulations, or the Act;
 - C. Inspect any facilities, equipment (including monitoring methods and an operation and maintenance inspection), or operations regulated under this permit; and
 - D. Sample or monitor, for the purpose of assuring compliance with this permit or as otherwise authorized by the Act or regulations adopted thereunder, any substances or parameters at any location.
- XIII. If samples are taken under Section XII.D. above, the officer or employee obtaining such samples shall give the owner, operator or agent in charge a receipt describing the sample obtained. If requested prior to leaving the premises, a portion of each sample equal in volume or weight to the portion retained shall be given to the owner, operator or agent in charge. If an analysis is made of such samples, a copy of the analysis shall be furnished promptly to the owner, operator or agency in charge.
- XIV. The permittee shall allow authorized officers and employees of the Department of Environmental Quality, upon presentation of identification, to enter upon the permittee's premises to investigate potential or alleged violations of the Act or the rules and regulations adopted thereunder. In such investigations, the permittee shall be notified at the time entrance is requested of the nature of the suspected violation. Inspections under this subsection shall be limited to the aspects of alleged violations. However, this shall not in any way preclude prosecution of all violations found.

LOUISIANA AIR EMISSION PERMIT GENERAL CONDITIONS

- XV. The permittee shall comply with the reporting requirements specified under LAC 33:III.919 as well as notification requirements specified under LAC 33:III.927.
- XVI. In the event of any change in ownership of the source described in this permit, the permittee and the succeeding owner shall notify the Office of Environmental Services, Air Permits Division, within ninety (90) days after the event, to amend this permit.
- XVII. Very small emissions to the air resulting from routine operations, that are predictable, expected, periodic, and quantifiable and that are submitted by the permitted facility and approved by the Air Permits Division are considered authorized discharges. Approved activities are noted in the General Condition XVII Activities List of this permit. To be approved as an authorized discharge, these very small releases must:
1. Generally be less than 5 TPY
 2. Be less than the minimum emission rate (MER)
 3. Be scheduled daily, weekly, monthly, etc., or
 4. Be necessary prior to plant startup or after shutdown [line or compressor pressuring/depressuring for example]

These releases are not included in the permit totals because they are small and will have an insignificant impact on air quality. This general condition does not authorize the maintenance of a nuisance, or a danger to public health and safety. The permitted facility must comply with all applicable requirements, including release reporting under LAC 33:1.3901.

- XVIII. Provisions of this permit may be appealed in writing pursuant to La. R.S. 30:2024(A) within 30 days from receipt of the permit. Only those provisions specifically appealed will be suspended by a request for hearing, unless the secretary or the assistant secretary elects to suspend other provisions as well. Construction cannot proceed except as specifically approved by the secretary or assistant secretary. A request for hearing must be sent to the following:

Attention: Office of the Secretary, Legal Services Division
La. Dept. of Environmental Quality
Post Office Box 4302
Baton Rouge, Louisiana 70821-4302

- XIX. Certain Part 70 general conditions may duplicate or conflict with state general conditions. To the extent that any Part 70 conditions conflict with state general conditions, then the Part 70 general conditions control. To the extent that any Part 70 general conditions duplicate any state general conditions, then such state and Part 70 provisions will be enforced as if there is only one condition rather than two conditions.

General Information

AI ID: 3271 Saso! North America Inc - Lake Charles Chemical Complex

Activity Number: PER200060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

ID	Name	User Group	Start Date
0520-00003	Sasol North America Inc - Lake Charles Chemical Complex	CDS Number	06-19-1973
0520-00117	Sasol North America Inc - Lake Charles Chemical Complex	Emission Inventory	03-01-2004
76-00083036	Federal Tax ID	Federal Tax ID	11-21-1999
AR000041087	Sasol North America Inc	Hazardous Waste Notification	11-20-2001
PMTI/PC/CA	GPRA Baselines	Hazardous Waste Permitting	10-01-1997
01079	Conoco	Inactive & Abandoned Sites	11-01-1981
A00033336	WPC File Number	LPDES Permit #	05-22-2003
AR05M448	WPC File Number	LPDES Permit #	05-22-2003
AR10C214	LPDES Permit #	LPDES Permit #	08-08-2004
WP1386	WPC State Permit Number	LWDPS Permit #	06-25-2003
32271	Condea Vista Co	Other	12-17-1999
A-345A-N01	Priority 1 Emergency Site	Priority 1 Emergency Site	07-18-2006
A-4902-LD1	Norm	Radiation License Number	03-20-2006
3D-019-2072	Radioactive Material License	Radiation License Number	06-29-2000
7897	X-Ray Registration Number	Radiation X-ray Registration Number	11-21-1999
17864	SW ID#	Solid Waste Facility No.	04-30-2001
41731	Vista Chemical Co	TEMPO Merge	10-23-2001
886799	Condea Vista Co	TEMPO Merge	12-10-2001
0520-00003	Toxic Emissions Data Inventory #	Toxic Emissions Data Inventory #	08-06-2001
70669VSTCHOLDSP	TRI #	Toxic Release Inventory	01-01-1991
10-009868	UST Facility ID (from UST legacy data)	Underground Storage Tanks	07-19-2004
WQC 020916-04	Water Quality Certification #	Water Certification	10-11-2002
			09-16-2002

Physical location:

Westlake, LA 70669

Coordinate Datum: NAD27
Latitude: 30° 15' 20" N
Longitude: 93° 31' 00" W
Elevation: 220 ft
Surveyor: Spanish - 1889
Location: Westgate, LA 70689

EDUCATION IN UTMAR

Related People:

Gina Bradley PO Box 727 Westlake, LA 706690727 3374945096 (WP)
Gina Bradley PO Box 727 Westlake, LA 706690727 3374945096 (WP)
Gina Bradley PO Box 727 Westlake, LA 706690727 3374945096 (WP)

General Information

AI ID: 3271 Sasol North America Inc - Lake Charles Chemical Complex
 Activity Number: PER20060002
 Permit Number: 2743-V2
 Air - Title V Regular Permit Renewal

Related People:	Name	Mailing Address	Phone (Type)	Relationship
David Brown	David Brown	2201 Old Spanish Trail Westlake, LA 706690727	3374945434 (WP)	Radiation Safety Officer for
David Brown	David Brown	2201 Old Spanish Trail Westlake, LA 706690727	3378427860 (CP)	Radiation Safety Officer for
David Brown	David Brown	2201 Old Spanish Trail Westlake, LA 706690727	2813688183 (WF)	Radiation Safety Officer for
David Brown	David Brown	2201 Old Spanish Trail Westlake, LA 706690727	3374980728 (DP)	Radiation Safety Officer for
David Brown	David Brown	2201 Old Spanish Trail Westlake, LA 706690727	3378427860 (CP)	Radiation Contact For
David Brown	David Brown	2201 Old Spanish Trail Westlake, LA 706690727	3374980728 (DP)	Radiation Contact For
David Brown	David Brown	2201 Old Spanish Trail Westlake, LA 706690727	3374945434 (WP)	NORM Contact for
David Brown	David Brown	2201 Old Spanish Trail Westlake, LA 706690727	2813688183 (WF)	NORM Contact for
David Brown	David Brown	2201 Old Spanish Trail Westlake, LA 706690727	dave.brown@us.sas.	NORM Contact for
David Brown	David Brown	2201 Old Spanish Trail Westlake, LA 706690727	3374945434 (VP)	Radiation License Billing Party for
David Brown	David Brown	2201 Old Spanish Trail Westlake, LA 706690727	dave.brown@us.sas.	Radiation Registration Billing Party for
David Brown	David Brown	2201 Old Spanish Trail Westlake, LA 706690727	3374980728 (DP)	Radiation Registration Billing Party for
David Brown	David Brown	2201 Old Spanish Trail Westlake, LA 706690727	2813688183 (WF)	Radiation Registration Billing Party for
David Brown	David Brown	2201 Old Spanish Trail Westlake, LA 706690727	3378427860 (CP)	Radiation Registration Billing Party for
David Brown	David Brown	2201 Old Spanish Trail Westlake, LA 706690727	3374945434 (WP)	Radiation Registration Billing Party for
David Brown	David Brown	2201 Old Spanish Trail Westlake, LA 706690727	3374980728 (DP)	NORM Contact for
David Brown	David Brown	2201 Old Spanish Trail Westlake, LA 706690727	3378427860 (CP)	NORM Contact for
David Brown	David Brown	2201 Old Spanish Trail Westlake, LA 706690727	dave.brown@us.sas.	Radiation Contact For
David Brown	David Brown	2201 Old Spanish Trail Westlake, LA 706690727	3374980728 (DP)	Radiation License Billing Party for
David Brown	David Brown	2201 Old Spanish Trail Westlake, LA 706690727	2813688183 (WF)	Radiation Registration Billing Party for
David Brown	David Brown	2201 Old Spanish Trail Westlake, LA 706690727	3378427860 (CP)	Radiation Registration Billing Party for
David Brown	David Brown	2201 Old Spanish Trail Westlake, LA 706690727	3374945434 (WP)	Radiation Registration Billing Party for
David Brown	David Brown	2201 Old Spanish Trail Westlake, LA 706690727	3374980728 (DP)	NORM Contact for
David Brown	David Brown	2201 Old Spanish Trail Westlake, LA 706690727	3378427860 (CP)	NORM Contact for
David Brown	David Brown	2201 Old Spanish Trail Westlake, LA 706690727	dave.brown@us.sas.	Radiation Contact For
David Brown	David Brown	2201 Old Spanish Trail Westlake, LA 706690727	3374980728 (DP)	Radiation License Billing Party for
David Brown	David Brown	2201 Old Spanish Trail Westlake, LA 706690727	2813688183 (WF)	Radiation Registration Billing Party for
David Brown	David Brown	2201 Old Spanish Trail Westlake, LA 706690727	3378427860 (CP)	Radiation Registration Billing Party for
David Brown	David Brown	2201 Old Spanish Trail Westlake, LA 706690727	2813688183 (WF)	Radiation Registration Billing Party for
David Brown	David Brown	2201 Old Spanish Trail Westlake, LA 706690727	3374945434 (VP)	Radiation Contact For
David Brown	David Brown	2201 Old Spanish Trail Westlake, LA 706690727	dave.brown@us.sas.	Radiation Safety Officer for
Michael G. Hayes	Michael G. Hayes	PO Box 727 Westlake, LA 706690727	3371945437 or 5038	Underground Storage Tank Contact for
J. P. Warner	J. P. Warner	2201 Old Spanish Trail Westlake, LA 70669	3374945158 (VP)	Accident Prevention Billing Party for
D. Russell Webb	D. Russell Webb	2201 Old Spanish Trail Westlake, LA 70669	3374945172 (WF)	Accident Prevention Billing Party for
D. Russell Webb	D. Russell Webb	2201 Old Spanish Trail Westlake, LA 70669	3374945824 (WP)	Accident Prevention Contact for
Nicole Woods	Nicole Woods	PO Box 727 Westlake, LA 706690727	3374945085 (WF)	Accident Prevention Contact for
			3374945145 (VP)	Air Permit Contact For
Related Organizations:	Name	Address	Phone (Type)	Relationship
CONDEA Vista Co		2201 Old Spanish Trail Westlake, LA 70669	2815883373 (WP)	Operates
Sasol North America Inc		900 Threadneedle St. Houston, TX 77079	3374945301 (WP)	Operates
Sasol North America Inc		2201 Old Spanish Trail Westlake, LA 70669	3374945172 (WF)	Air Billing Party for
Sasol North America Inc		2201 Old Spanish Trail Westlake, LA 70669		Air Billing Party for

General Information

AI ID: 3271 Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

Related Organizations:	Name	Address	Phone (Type)	Relationship
	Vista Chemical Co	900 Threadneedle St Houston, TX 77079	7135313200 (VWP)	UST Billing Party for
	Vista Chemical Co	900 Threadneedle St Houston, TX 77079	7135313200 (VWP)	Owns
SIC Codes:	2821, Plastics materials and resins 2869, Industrial organic chemicals, nec 2899, Chemical preparations, nec			
NAIC Codes:	325192, Cyclic Crude and Intermediate Manufacturing			

Note: This report entitled "General Information" contains a summary of facility-level information contained in LDEQ's TEMPO database for this facility and is not considered a part of the permit. Please review the information contained in this document for accuracy and completeness. If any changes are required or if you have questions regarding this document, you may contact Mr. David Ferrand, Environmental Assistance Division, at (225) 219-3247 or email your changes to facupdate@la.gov.

INVENTORIES

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

Subject Item Inventory:

ID	Description	Tank Volume	Max. Operating Rate	Normal Operating Rate	Contents	Operating Time
EQT020	STM-BT-901 - Utility Steam Boiler No. 1					8760 hr/yr (All Year)
EQT021	STM-BT-902 - Utility Steam Boiler No. 2					8760 hr/yr (All Year)
EQT022	STM-BT-903 - Utility Steam Boiler No. 3					8760 hr/yr (All Year)
EQT024	STM-TT-918 - No. 2 Fuel Oil Tank					8760 hr/yr (All Year)
EQT295	ASU-BLK-SP - Black Tanks Sump	16546 gallons				8760 hr/yr (All Year)
EQT296	ASU-D7-951 - Supplemental BOD Tank	1000 gallons				8760 hr/yr (All Year)
EQT297	ASU-FB-252 - LPA Solvent Tank	18500 gallons				8760 hr/yr (All Year)
EQT298	ASU-HPSS - Holding Pond Inlet/Holding Pond Skimming Section	25000 gallons				8760 hr/yr (All Year)
EQT299	ASU-Holding Pond - Holding Ponds (HP-91/HP-92)	485000 gallons				8760 hr/yr (All Year)
EQT300	ASU-NL-91 - Storm Water Diversion Pond - North	1.93 million gallons				8760 hr/yr (All Year)
EQT301	ASU-S-2 - CPI					8760 hr/yr (All Year)
EQT302	ASU-SFSB-260A - Sand Filter Settling Basin - North	120000 gallons				8760 hr/yr (All Year)
EQT303	ASU-SUMPS - CPI Sump, Junction Box, Diversion Box, and Mixing Box					8760 hr/yr (All Year)
EQT304	ASU-T10-01 - Equalization Tank	942717 gallons				8760 hr/yr (All Year)
EQT305	ASU-T10-02 - Inventory Tank	514088 gallons				8760 hr/yr (All Year)
EQT306	ASU-T10-03 - pH Adjustment Splitter Tank	8221 gallons				8760 hr/yr (All Year)
EQT307	ASU-T10-04A - Aeration Tank A	745000 gallons				8760 hr/yr (All Year)
EQT308	ASU-T10-04B - Aeration Tank B	745000 gallons				8760 hr/yr (All Year)
EQT309	ASU-T10-05 - Flocculator / Splitter Tank	16112 gallons				8760 hr/yr (All Year)
EQT310	ASU-T10-06A - Clarifier A	205513 gallons				8760 hr/yr (All Year)
EQT311	ASU-T10-06B - Clarifier B	205513 gallons				8760 hr/yr (All Year)
EQT312	ASU-T10-06C - Clarifier C	5872 gallons				8760 hr/yr (All Year)
EQT313	ASU-T10-07 - Recycle Sludge Tank	5872 gallons				8760 hr/yr (All Year)
EQT314	ASU-T10-08 - Scum Tank	2114 gallons				8760 hr/yr (All Year)
EQT315	ASU-T10-09 - Filter Feed Tank	5872 gallons				8760 hr/yr (All Year)
EQT316	ASU-T10-10 - Clearwell Tank	20716 gallons				8760 hr/yr (All Year)
EQT317	ASU-T10-11 - Filter Backwash Holding Tank	34573 gallons				8760 hr/yr (All Year)
EQT318	ASU-T10-12 - Primary Sludge Thickener	21045 gallons				8760 hr/yr (All Year)
EQT319	ASU-T10-13 - Thickener Supernatant Tank	2114 gallons				8760 hr/yr (All Year)
EQT320	ASU-T10-18 - Ammonia Water Tank	5872 gallons				8760 hr/yr (All Year)
EQT321	ASU-T10-20A - Filter Area Tank and Sump	4000 gallons				8760 hr/yr (All Year)
EQT322	ASU-T10-21 - Effluent Holding Tank	30064 gallons				8760 hr/yr (All Year)
EQT323	ASU-T10-23 - Secondary Sludge Thickener	93952 gallons				8760 hr/yr (All Year)
EQT324	ASU-T10-24 - Secondary Sludge Thickener	93952 gallons				8760 hr/yr (All Year)
EQT325	ASU-T10-25 - Thickener Supernatant Tank	25895 gallons				8760 hr/yr (All Year)

INVENTORIES

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-Y2

Air - Title V Regular Permit Renewal

Subject Item Inventory:

ID	Description	Tank Volume	Max. Operating Rate	Normal Operating Rate	Contents	Operating Time
EQT326	ASU-T10-61 - DAF Feed Tank	8455 gallons				8760 hr/yr (All Year)
EQT327	ASU-T10-62 - Coagulation Tank	1421 gallons				8760 hr/yr (All Year)
EQT328	ASU-T10-63 - Floatation Tank	18473 gallons				8760 hr/yr (All Year)
EQT329	ASU-T10-64 - DAF Effluent Tank	8500 gallons				8760 hr/yr (All Year)
EQT330	ASU-T10-65 - DAF Float Tank	1174 gallons				8760 hr/yr (All Year)
EQT331	ASU-T6-227 - Black Tank	23781 gallons				8760 hr/yr (All Year)
EQT332	ASU-T6-249 - Black Tank	23781 gallons				8760 hr/yr (All Year)
EQT333	ASU-T6-903 - Press Feed Tank (FB-926)	105692 gallons				8760 hr/yr (All Year)
EQT334	ASU-T6-904 - Oily Solids Wastewater Tank (FB-927)	23781 gallons				8760 hr/yr (All Year)
EQT335	ASU-FA-251 - Quench Surge Tank					8760 hr/yr (All Year)
EQT336	ASU-FA-252 - Quench Off-Gas Knock-Out Pot					8760 hr/yr (All Year)
EQT337	ASU-FA-253 - Quench Reactor					8760 hr/yr (All Year)
EQT338	ASU-FB-254 - Quench Solid Settling Tank					8760 hr/yr (All Year)
EQT339	ALC - Alcohol Unit Fuel Gas System					8760 hr/yr (All Year)
EQT379	ASU-SL-91 - Storm Water Diversion Pond - South	1.93 million gallons				8760 hr/yr (All Year)
EQT380	ASU-SFSB-250B - Sand Filter Settling Basin - South	120000 gallons				8760 hr/yr (All Year)
EQT381	ASU-T10-20B - Filter Area Tank and Sump	4000 gallons				8760 hr/yr (All Year)
EQT382	ETH-BA-101 - Ethylene Cracking Furnace		456 MM BTU/hr	380 MM BTU/hr		8760 hr/yr (All Year)
EQT383	ETH-BA-102 - Ethylene Cracking Furnace		456 MM BTU/hr	380 MM BTU/hr		8760 hr/yr (All Year)
EQT384	ETH-BA-103 - Ethylene Cracking Furnace		456 MM BTU/hr	380 MM BTU/hr		8760 hr/yr (All Year)
EQT385	ETH-BA-104 - Ethylene Cracking Furnace		456 MM BTU/hr	380 MM BTU/hr		8760 hr/yr (All Year)
EQT386	ETH-BA-105 - Ethylene Cracking Furnace		456 MM BTU/hr	380 MM BTU/hr		8760 hr/yr (All Year)
EQT387	ETH-BA-106 - Ethylene Cracking Furnace		456 MM BTU/hr	380 MM BTU/hr		8760 hr/yr (All Year)
EQT388	ETH-BA-107 - Ethylene Cracking Furnace		336 MM BTU/hr	280 MM BTU/hr		8760 hr/yr (All Year)
EQT389	ETH-BA-201 - Feed Dryer Regenerator		9.17 MM BTU/hr	7.64 MM BTU/hr		8760 hr/yr (All Year)
EQT390	ETH-BA-401 - Acetylene / Propadiene Converter Regenerator		4.4 MM BTU/hr	3.67 MM BTU/hr		2788 hr/yr (All Year)
EQT391	ETH-CT-201 - North Ethylene Cooling Tower		58000 gallons/min	53000 gallons/min		8760 hr/yr (All Year)
EQT392	ETH-EGF - Enclosed Ground Flare					8760 hr/yr (All Year)
EQT393	ETH-F-501 - Ethylene Unit Elevated Flare					8760 hr/yr (All Year)
EQT394	ETH-FA-403V - Acetylene / Propadiene Converter					8760 hr/yr (All Year)
EQT395	ETH-FB-207 - Caustic Sewer Sump					8760 hr/yr (All Year)
EQT396	ETH-FB-215 - Compressor Wash Oil Tank	23781 gallons				8760 hr/yr (All Year)
EQT397	ETH-T7-907 - Sulfide Caustic Storage Tank FB-253	42277 gallons				8760 hr/yr (All Year)
EQT398	ETH-FB-801 - Methanol/Propanol Storage Tank	1691 gallons				8760 hr/yr (All Year)
EQT399	ETH-FB-802 - Compressor Wash Oil Day Tank	25366 gallons				8760 hr/yr (All Year)
EQT400	ETH-LR-4 - Ethylene Loading Rack		4200 gallons/hr			8760 hr/yr (All Year)
EQT401	ETH-LR-4A - Sulfide Caustic Loading Station		4200 gallons/hr	3360 gallons/hr		8760 hr/yr (All Year)

INVENTORIES

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex
 Activity Number: PER20060002
 Permit Number: 2743-V2
 Air - Title V Regular Permit Renewal

Subject Item Inventory:

ID	Description	Tank Volume	Max. Operating Rate	Normal Operating Rate	Contents	Operating Time
EQT402	ETH-T7-903 - Injection Oil Tank	46974 gallons				8760 hr/yr (All Year)
EQT403	ETH-T7-913 - HAD / Oil Tank	424238 gallons				8760 hr/yr (All Year)
EQT404	ETH-T7-914 - North Wastewater Tank	1.7 million gallons				8760 hr/yr (All Year)
EQT405	ETH-T7-915 - South Wastewater Tank	1.7 million gallons				8760 hr/yr (All Year)
EQT406	ETH-T7-916 - Wastewater Tank	710438 gallons				8760 hr/yr (All Year)
EQT407	ETH-T7-929 - Sulfide Caustic Tank	56369 gallons				8760 hr/yr (All Year)
EQT408	ETH-WW - Ethylene Unit Wastewater Sources					8760 hr/yr (All Year)
EQT409	ETH-Y7-902 - South Ethylene Cooling Tower		22000 gallons/min			8760 hr/yr (All Year)
EQT414	ETH-D7-113 - MEROX Storage Tank					8760 hr/yr (All Year)
EQT415	ETH-DA-401 - Demethanizer					8760 hr/yr (All Year)
EQT416	ETH-DA-402 - Deethanizer					8760 hr/yr (All Year)
EQT417	ETH-DA-403 - Ethylene Fractionator Rectifier Tower					8760 hr/yr (All Year)
EQT418	ETH-DA-404 - Depropanizer					8760 hr/yr (All Year)
EQT419	ETH-DA-405 - Ethylene Fractionator Stripper Tower					8760 hr/yr (All Year)
EQT420	ETH-DA-407 - Debutanizer					8760 hr/yr (All Year)
EQT421	ETH-DA-408 - Demethanizer Overhead Rectifier					8760 hr/yr (All Year)
EQT422	ETH-FA-414A - Propadiene Converter					8760 hr/yr (All Year)
EQT423	ETH-FA-414B - Propadiene Converter					8760 hr/yr (All Year)
EQT424	ETH-D7-1005 - Flare Stack Condensate Knock Out Pot HA-900					8760 hr/yr (All Year)
EQT425	ETH-D7-901 - Mixed C4 (Butadiene) Storage Bullet					8760 hr/yr (All Year)
EQT426	ETH-D7-902 - Mixed C4 (Butadiene) Storage Bullet					8760 hr/yr (All Year)
EQT427	ETH-D7-903 - Propylene Storage Bullet					8760 hr/yr (All Year)
EQT428	ETH-D7-932 - Propane/Propylene Storage Bullet					8760 hr/yr (All Year)
EQT429	ETH-D7-927 - Propane/Propylene Storage Bullet					8760 hr/yr (All Year)
EQT430	ETH-D7-946 - Heavy Aromatic Distillate Storage Bullet					8760 hr/yr (All Year)
EQT431	ETH-D7-947 - Sulfide Caustic / Oil Separation Drum					8760 hr/yr (All Year)
EQT432	ETH-D7-952 - Degassing Pot					8760 hr/yr (All Year)
EQT433	ETH-D7-983 - Off-Sites Low Pressure Wet Flare Header					8760 hr/yr (All Year)
EQT434	ETH-D7-984 - Off-Sites Low Pressure Wet Flare Header					8760 hr/yr (All Year)
EQT435	ETH-FA-801 - Wet Flare Drum D7-801					8760 hr/yr (All Year)
EQT436	ETH-FB-803 - Methanol / Propanol Storage Tank					8760 hr/yr (All Year)
EQT437	ETH-HA-103 - MEROX Day Tank					8760 hr/yr (All Year)
EQT438	ETH-HA-104 - MEROX Satellite Tank					8760 hr/yr (All Year)
EQT439	ETH-HA-203 - Caustic Tower Degassing Pot					8760 hr/yr (All Year)
EQT440	ETH-HA-204 - Water Wash Pot for Caustic Tower					8760 hr/yr (All Year)

INVENTORIES
AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex
Activity Number: PER20060002
Permit Number: 2743-V2
Air - Title V Regular Permit Renewal

Subject Item Inventory:

ID	Description	Tank Volume	Max. Operating Rate	Normal Operating Rate	Contents	Operating Time
EQT441	ETH-W7-901 - Benzene Stripper					8760 h/yr (All Year)
EQT442	ETH-FA-403A - Acetylene Converter					8760 h/yr (All Year)
EQT443	ETH-FA-403B - Acetylene Converter					8760 h/yr (All Year)
EQT444	ETH-FA-403C - Acetylene Converter					8760 h/yr (All Year)
EQT445	ETH-T7-901 - Light Aromatic Concentrate Storage Bullet					8760 h/yr (All Year)
EQT446	ETH-T7-975 - Tank T7-975					8760 h/yr (All Year)
EQT448	ETH-D-414A - Propadiene Converter					8760 h/yr (All Year)
EQT449	ETH-D-414B - Propadiene Converter					8760 h/yr (All Year)
EQT450	ETH-WHRB - Ethylene Furnaces Waste Heat Recovery Boiler					8760 h/yr (All Year)
FUG002	STM-FE-1 - Steam Unit Fugitives					8760 h/yr (All Year)
FUG006	ASU-FE-1 - Active Sludge Unit Fugitive					8760 h/yr (All Year)
FUG008	ETH-FE-1-E - Ethylene Unit Fugitive					8760 h/yr (All Year)

Subject Item Groups:

ID	Description	Included Components (from Above)
GRP042	ETH-CAP - Ethylene Cracking Furnaces Cap	EQT382 ETH-BA-101 - Ethylene Cracking Furnace
GRP042	ETH-CAP - Ethylene Cracking Furnaces Cap	EQT383 ETH-BA-102 - Ethylene Cracking Furnace
GRP042	ETH-CAP - Ethylene Cracking Furnaces Cap	EQT384 ETH-BA-103 - Ethylene Cracking Furnace
GRP042	ETH-CAP - Ethylene Cracking Furnaces Cap	EQT385 ETH-BA-104 - Ethylene Cracking Furnace
GRP042	ETH-CAP - Ethylene Cracking Furnaces Cap	EQT386 ETH-BA-105 - Ethylene Cracking Furnace
GRP042	ETH-CAP - Ethylene Cracking Furnaces Cap	EQT387 ETH-BA-106 - Ethylene Cracking Furnace
GRP042	ETH-CAP - Ethylene Cracking Furnaces Cap	EQT388 ETH-BA-107 - Ethylene Cracking Furnace
GRP043	STM-CAP - Utility Steam Boilers Cap	EQT20 STM-B7-901 - Utility Steam Boiler No. 1
GRP043	STM-CAP - Utility Steam Boilers Cap	EQT21 STM-B7-902 - Utility Steam Boiler No. 2
GRP043	STM-CAP - Utility Steam Boilers Cap	EQT22 STM-B7-903 - Utility Steam Boiler No. 3
GRP044	ETH-FLARE - Ethylene Unit Flare Cap	EQT392 ETH-EGF - Enclosed Ground Flare
GRP044	ETH-FLARE - Ethylene Unit Flare Cap	EQT393 ETH-F-501 - Ethylene Unit Elevated Flare
GRP045	ETH-WAOF - Wet Air Oxidation Feed Tanks	EQT397 ETH-T7-907 - Sulfide Caustic Storage Tank FB-253
GRP045	ETH-WAOF - Wet Air Oxidation Feed Tanks	EQT407 ETH-T7-929 - Sulfide Caustic Tank
GRP046	ETH-WWTKS - Wastewater Tanks Cap	EQT404 ETH-T7-914 - North Wastewater Tank
GRP046	ETH-WWTKS - Wastewater Tanks Cap	EQT405 ETH-T7-915 - South Wastewater Tank
GRP046	ETH-WWTKS - Wastewater Tanks Cap	EQT406 ETH-T7-916 - Wastewater Tank

Relationships:

Subject Item	Relationship	Subject Item
EQT335 ASU-FA-251 - Quench Surge Tank	Vents to	EQT339 ALC - Alcohol Unit Fuel Gas System

INVENTORIES
A1 ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex
Activity Number: PER20060002
Permit Number: 2743-V2
Air - Title V Regular Permit Renewal

Relationships:

Subject Item	Relationship	Subject Item
EQT336 ASU-FA-252 - Quench Off-Gas Knock-Out Pot	Vents to	EQT339 ALC - Alcohol Unit Fuel Gas System
EQT337 ASU-FA-253 - Quench Reactor	Vents to	EQT339 ALC - Alcohol Unit Fuel Gas System
EQT338 ASU-FB-254 - Quench Solid Settling Tank	Vents to	EQT339 ALC - Alcohol Unit Fuel Gas System
EQT414 ETH-D7-113 - MEROX Storage Tank	Controlled by	EQT392 ETH-EGF - Enclosed Ground Flare
EQT414 ETH-D7-113 - MEROX Storage Tank	Controlled by	EQT393 ETH-F-501 - Ethylene Unit Elevated Flare
EQT422 ETH-FA-414A - Propadiene Converter	Vents to	EQT394 ETH-FA-403V - Acetylene / Propadiene Converter
EQT423 ETH-FA-414B - Propadiene Converter	Vents to	EQT394 ETH-FA-403V - Acetylene / Propadiene Converter
EQT424 ETH-D7-1005 - Flare Stack Condensate Knock Out Pot HA-900	Controlled by	EQT392 ETH-EGF - Enclosed Ground Flare
EQT424 ETH-D7-1005 - Flare Stack Condensate Knock Out Pot HA-900	Controlled by	EQT393 ETH-F-501 - Ethylene Unit Elevated Flare
EQT425 ETH-D7-901 - Mixed C4 (Butadiene) Storage Bullet	Controlled by	EQT392 ETH-EGF - Enclosed Ground Flare
EQT425 ETH-D7-901 - Mixed C4 (Butadiene) Storage Bullet	Controlled by	EQT393 ETH-F-501 - Ethylene Unit Elevated Flare
EQT426 ETH-D7-902 - Mixed C4 (Butadiene) Storage Bullet	Controlled by	EQT392 ETH-EGF - Enclosed Ground Flare
EQT426 ETH-D7-902 - Mixed C4 (Butadiene) Storage Bullet	Controlled by	EQT393 ETH-F-501 - Ethylene Unit Elevated Flare
EQT427 ETH-D7-903 - Propylene Storage Bullet	Controlled by	EQT392 ETH-EGF - Enclosed Ground Flare
EQT427 ETH-D7-903 - Propylene Storage Bullet	Controlled by	EQT393 ETH-F-501 - Ethylene Unit Elevated Flare
EQT428 ETH-D7-922 - Propane/Propylene Storage Bullet	Controlled by	EQT392 ETH-EGF - Enclosed Ground Flare
EQT428 ETH-D7-922 - Propane/Propylene Storage Bullet	Controlled by	EQT393 ETH-F-501 - Ethylene Unit Elevated Flare
EQT429 ETH-D7-927 - Propane/Propylene Storage Bullet	Controlled by	EQT392 ETH-EGF - Enclosed Ground Flare
EQT429 ETH-D7-927 - Propane/Propylene Storage Bullet	Controlled by	EQT393 ETH-F-501 - Ethylene Unit Elevated Flare
EQT430 ETH-D7-946 - Heavy Aromatic Distillate Storage Bullet	Controlled by	EQT392 ETH-EGF - Enclosed Ground Flare
EQT430 ETH-D7-946 - Heavy Aromatic Distillate Storage Bullet	Controlled by	EQT393 ETH-F-501 - Ethylene Unit Elevated Flare
EQT431 ETH-D7-947 - Sulfide Caustic / Oil Separation Drum	Controlled by	EQT392 ETH-EGF - Enclosed Ground Flare
EQT431 ETH-D7-947 - Sulfide Caustic / Oil Separation Drum	Controlled by	EQT393 ETH-F-501 - Ethylene Unit Elevated Flare
EQT432 ETH-D7-952 - Degassing Pot	Controlled by	EQT392 ETH-EGF - Enclosed Ground Flare
EQT432 ETH-D7-952 - Degassing Pot	Controlled by	EQT393 ETH-F-501 - Ethylene Unit Elevated Flare
EQT433 ETH-D7-983 - Off-Sites Low Pressure Wet Flare Header Knockout Drum	Controlled by	EQT392 ETH-EGF - Enclosed Ground Flare
EQT433 ETH-D7-983 - Off-Sites Low Pressure Wet Flare Header Knockout Drum	Controlled by	EQT393 ETH-F-501 - Ethylene Unit Elevated Flare
EQT434 ETH-D7-984 - Off-Sites Low Pressure Wet Flare Header Knockout Transfer Pot	Controlled by	EQT392 ETH-EGF - Enclosed Ground Flare
EQT434 ETH-D7-984 - Off-Sites Low Pressure Wet Flare Header Knockout Transfer Pot	Controlled by	EQT393 ETH-F-501 - Ethylene Unit Elevated Flare
EQT435 ETH-FA-801 - Wet Flare Drum D7-801	Controlled by	EQT392 ETH-EGF - Enclosed Ground Flare
EQT435 ETH-FA-801 - Wet Flare Drum D7-801	Controlled by	EQT393 ETH-F-501 - Ethylene Unit Elevated Flare
EQT436 ETH-FB-803 - Methanol / Propanol Storage Tank	Controlled by	EQT392 ETH-EGF - Enclosed Ground Flare
EQT436 ETH-FB-803 - Methanol / Propanol Storage Tank	Controlled by	EQT393 ETH-F-501 - Ethylene Unit Elevated Flare
EQT437 ETH-HA-103 - MEROX Day Tank	Controlled by	EQT392 ETH-EGF - Enclosed Ground Flare
EQT437 ETH-HA-103 - MEROX Day Tank	Controlled by	EQT393 ETH-F-501 - Ethylene Unit Elevated Flare
EQT438 ETH-HA-104 - MEROX Satellite Tank	Controlled by	EQT392 ETH-EGF - Enclosed Ground Flare
EQT438 ETH-HA-104 - MEROX Satellite Tank	Controlled by	EQT393 ETH-F-501 - Ethylene Unit Elevated Flare

INVENTORIES
All ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex
Activity Number: PER20060002
Permit Number: 2743-V2
Air - Title V Regular Permit Renewal

Relationships:

Subject Item	Relationship	Subject Item
EQT439 ETH-HA-203 - Caustic Tower Degassing Pot	Controlled by	EQT392 ETH-EGF - Enclosed Ground Flare
EQT439 ETH-HA-203 - Caustic Tower Degassing Pot	Controlled by	EQT393 ETH-F-501 - Ethylene Unit Elevated Flare
EQT440 ETH-HA-204 - Water Wash Poi for Caustic Tower	Controlled by	EQT392 ETH-EGF - Enclosed Ground Flare
EQT440 ETH-HA-204 - Water Wash Poi for Caustic Tower	Controlled by	EQT393 ETH-F-501 - Ethylene Unit Elevated Flare
EQT441 ETH-WT-901 - Benzene Stripper	Vents to	EQT394 ETH-FA-403V - Acetylene / Propadiene Converter
EQT442 ETH-FA-403A - Acetylene Converter	Vents to	EQT394 ETH-FA-403V - Acetylene / Propadiene Converter
EQT443 ETH-FA-403B - Acetylene Converter	Vents to	EQT394 ETH-FA-403V - Acetylene / Propadiene Converter
EQT444 ETH-FA-403C - Acetylene Converter	Vents to	EQT394 ETH-FA-403V - Acetylene / Propadiene Converter
EQT445 ETH-T7-901 - Light Aromatic Concentrate Storage Bullet	Controlled by	EQT392 ETH-EGF - Enclosed Ground Flare
EQT445 ETH-T7-901 - Light Aromatic Concentrate Storage Bullet	Controlled by	EQT393 ETH-F-501 - Ethylene Unit Elevated Flare
EQT446 ETH-T7-975 - Tank T7-975	Controlled by	EQT20 STM-B7-901 - Utility Steam Boiler No. 1
EQT446 ETH-T7-975 - Tank T7-975	Controlled by	EQT21 STM-B7-902 - Utility Steam Boiler No. 2
EQT446 ETH-T7-975 - Tank T7-975	Controlled by	EQT22 STM-B7-903 - Utility Steam Boiler No. 3
EQT448 ETH-D-414A - Propadiene Converter	Vents to	EQT394 ETH-FA-403V - Acetylene / Propadiene Converter
EQT449 ETH-D-414B - Propadiene Converter	Vents to	EQT394 ETH-FA-403V - Acetylene / Propadiene Converter

Stack Information:

ID	Velocity (ft/sec)	Flow Rate (cubic ft/min-actual)	Diameter (feet)	Discharge Area (square feet)	Height (feet)	Temperature (oF)
EQT020 STM-B7-901 - Utility Steam Boiler No. 1	46.5	92600	6.5	50	50	300
EQT021 STM-B7-902 - Utility Steam Boiler No. 2	46.5	92600	6.5	50	50	300
EQT022 STM-B7-903 - Utility Steam Boiler No. 3	46.5	92600	6.5	50	50	300
EQT024 STM-T7-918 - No. 2 Fuel Oil Tank			.25		40	
EQT297 ASU-FB-252 - LPA Solvent Tank					16	
EQT301 ASU-S-2 - CPI					12	
EQT305 ASU-T10-02 - Inventory Tank					40	
EQT306 ASU-T10-03 - pH Adjustment Splitter Tank					16	
EQT307 ASU-T10-04A - Aeration Tank A					34	
EQT308 ASU-T10-04B - Aeration Tank B					34	
EQT309 ASU-T10-05 - Flocculator / Splitter Tank					16	
EQT310 ASU-T10-06A - Clarifier A					14	
EQT311 ASU-T10-06B - Clarifier B					14	
EQT312 ASU-T10-06C - Clarifier C					14	
EQT313 ASU-T10-07 - Recycle Sludge Tank					20	
EQT314 ASU-T10-08 - Scum Tank					12	
EQT315 ASU-T10-09 - Filter Feed Tank					22	
EQT316 ASU-T10-10 - Cleanwell Tank					20	
EQT317 ASU-T10-11 - Filter Backwash Holding Tank					25	
EQT318 ASU-T10-12 - Primary Sludge Thickener					14	
EQT319 ASU-T10-13 - Thickener Supernatant Tank					12	
EQT320 ASU-T10-18 - Ammonia Water Tank					12	

INVENTORIES
AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex
Activity Number: PER20060002
Permit Number: 2743-V2
Air - Title V Regular Permit Renewal

Stack Information:

ID	Velocity (ft/sec)	Flow Rate (cubic ft/min-actual)	Diameter (feet)	Discharge Area (square feet)	Height (feet)	Temperature (°F)
EQT321 ASU-T10-20A - Filter Area Tank and Sump					10	
EQT322 ASU-T10-21 - Effluent Holding Tank					20	
EQT323 ASU-T10-23 - Secondary Sludge Thickener					40	
EQT324 ASU-T10-24 - Secondary Sludge Thickener					40	
EQT325 ASU-T10-25 - Thickener Supernatant Tank					40	
EQT326 ASU-T10-61 - DAF Feed Tank					20	
EQT327 ASU-T10-62 - Coagulation Tank					8	
EQT328 ASU-T10-63 - Flootation Tank					6.5	
EQT329 ASU-T10-64 - DAF Effluent Tank					10	
EQT330 ASU-T10-65 - DAF Float Tank					8	
EQT331 ASU-T16-227 - Black Tank					18	
EQT332 ASU-T16-249 - Black Tank					18	
EQT333 ASU-T16-903 - Press Feed Tank (FB-926)					20	
EQT334 ASU-T16-904 - Oily Solids Wastewater Tank (FB-927)					18	
EQT335 ASU-FA-251 - Quench Surge Tank						
EQT336 ASU-FA-252 - Quench Off-Gas Knock-Out Pot						
EQT338 ASU-FB-254 - Quench Solid Settling Tank					10	
EQT381 ASU-T10-20B - Filter Area Tank and Sump	39	174917	9.75		125	800
EQT382 ETH-BA-101 - Ethylene Cracking Furnace	39	174917	9.75		125	600
EQT383 ETH-BA-102 - Ethylene Cracking Furnace	39	174917	9.75		125	600
EQT384 ETH-BA-103 - Ethylene Cracking Furnace	39	174917	9.75		125	600
EQT385 ETH-BA-104 - Ethylene Cracking Furnace	39	174917	9.75		125	600
EQT386 ETH-BA-105 - Ethylene Cracking Furnace	39	174917	9.75		125	600
EQT387 ETH-BA-106 - Ethylene Cracking Furnace	39	174917	9.75		125	600
EQT388 ETH-BA-107 - Ethylene Cracking Furnace	39	174917	9.75		125	600
EQT389 ETH-BA-201 - Feed Dryer Regenerator	18	5205	2.5		75	1050
EQT390 ETH-BA-401 - Acetylene / Propadiene Converter Regenerator	14	2509	1.97		72	1050
EQT393 ETH-F-501 - Ethylene Unit Elevated Flare	65.6		3		130	1832
EQT394 ETH-FA-403V - Acetylene / Propadiene Converter	4.7	.1	.66		42	140
EQT395 ETH-FB-207 - Caustic Sewer Sump						
EQT396 ETH-FB-215 - Compressor Wash Oil Tank					.25	18
EQT397 ETH-T7-907 - Sulfide Caustic Storage Tank FB-253					.25	18
EQT398 ETH-FB-801 - Methanol/Propanol Storage Tank					.25	8
EQT399 ETH-FB-802 - Compressor Wash Oil Day Tank					.25	30
EQT402 ETH-T7-903 - Injection Oil Tank					.25	20
EQT403 ETH-T7-913 - HAD / Oil Tank					.25	40
EQT404 ETH-T7-914 - North Wastewater Tank					.25	40
EQT405 ETH-T7-915 - South Wastewater Tank					.25	40
EQT406 ETH-T7-916 - Wastewater Tank					.25	40
EQT407 ETH-T7-929 - Sulfide Caustic Tank					.25	24
EQT408 ETH-WW - Ethylene Unit Wastewater Sources					.25	
EQT414 ETH-D7-113 - MEROX Storage Tank						

INVENTORIES
AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex
Activity Number: PER2006002
Permit Number: 2743-V2
Air - Title V Regular Permit Renewal

Stack Information:

ID	Velocity (ft/sec)	Flow Rate (cubic ft/min-actual)	Diameter (feet)	Discharge Area (square feet)	Height (feet)	Temperature (°F)
EQT422	ETH-FA-414A	Propadiene Converter				
EQT423	ETH-FA-414B	Propadiene Converter				
EQT424	ETH-D7-1005	- Flare Stack Condensate Knock Out Pot	HA-900			
EQT425	ETH-D7-901	- Mixed C4 (Butadiene) Storage Bullet				
EQT426	ETH-D7-902	- Mixed C4 (Butadiene) Storage Bullet				
EQT427	ETH-D7-903	- Propylene Storage Bullet				
EQT428	ETH-D7-922	- Propane/Propylene Storage Bullet				
EQT429	ETH-D7-927	- Propane/Propylene Storage Bullet				
EQT430	ETH-D7-946	- Heavy Aromatic Distillate Storage Bullet				
EQT431	ETH-D7-947	- Sulfide Caustic / Oil Separation Drum				
EQT432	ETH-D7-952	- Degassing Pot				
EQT433	ETH-D7-983	- Off-Sites Low Pressure Wet Flare Header Knockout Drum				
EQT434	ETH-D7-984	- Off-Sites Low Pressure Wet Flare Header Knockout Transfer Pot				
EQT435	ETH-FA-801	- Wet Flare Drum D7-801				
EQT436	ETH-FB-803	- Methanol / Propanol Storage Tank				
EQT437	ETH-HA-103	- MEROX Day Tank				
EQT438	ETH-HA-104	- MEROX Satellite Tank				
EQT439	ETH-HA-203	- Caustic Tower Degassing Pot				
EQT440	ETH-HA-204	- Water Wash Pot for Caustic Tower				
EQT441	ETH-W7-901	- Benzene Stripper				
EQT442	ETH-FA-403A	- Acetylene Converter				
EQT443	ETH-FA-403B	- Acetylene Converter				
EQT444	ETH-FA-403C	- Acetylene Converter				
EQT445	ETH-T7-901	- Light Aromatic Concentrate Storage Bullet				
EQT446	ETH-T7-975	- Tank T7-975				
EQT448	ETH-D414A	- Propadiene Converter				
EQT449	ETH-D414B	- Propadiene Converter				
EQT450	ETH-WHRB	- Ethylene Furnaces Waste Heat Recovery Boiler				

Fee Information:

Subj Item Id	Multiplier	Units Of Measure	Fee Desc
AI3271	230	MM Lb/Yr	0630 - Organic Oxides, Alcohols, Glycols (Rated Capacity) 1D14 - Level or density gauges

EMISSION RATES FOR CRITERIA POLLUTANTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER2006002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

All phases

Subject Item	PM ₁₀			SO ₂			NOx			CO			VOC		
	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year
EQT 020		4.110			117.730			109.880				32.960			2.160
STM-B7-901		4.110			117.730			109.880				32.960			2.160
EQT 021		4.110			117.730			109.880				32.960			2.160
STM-B7-902		4.110			117.730			109.880				32.960			2.160
EQT 022		4.110			117.730			109.880				32.960			2.160
STM-B7-903		4.110			117.730			109.880				32.960			2.160
EQT 024		4.110			117.730			109.880				32.960			2.160
STM-T7-918		4.110			117.730			109.880				32.960			2.160
EQT 295		4.110			117.730			109.880				32.960			2.160
EQT 296		4.110			117.730			109.880				32.960			2.160
ASU-D7-951		4.110			117.730			109.880				32.960			2.160
EQT 297		4.110			117.730			109.880				32.960			2.160
ASU-FB-232		4.110			117.730			109.880				32.960			2.160
EQT 298		4.110			117.730			109.880				32.960			2.160
ASU-HPSS		4.110			117.730			109.880				32.960			2.160
EQT 299		4.110			117.730			109.880				32.960			2.160
ASU-Holding Pond		4.110			117.730			109.880				32.960			2.160
EQT 300		4.110			117.730			109.880				32.960			2.160
ASU-NL-91		4.110			117.730			109.880				32.960			2.160
EQT 301		4.110			117.730			109.880				32.960			2.160
ASU-S-2		4.110			117.730			109.880				32.960			2.160
EQT 302		4.110			117.730			109.880				32.960			2.160
ASU-SFSS-250A		4.110			117.730			109.880				32.960			2.160
EQT 303		4.110			117.730			109.880				32.960			2.160
ASU-SUMPS		4.110			117.730			109.880				32.960			2.160
EQT 304		4.110			117.730			109.880				32.960			2.160
ASU-T10-01		4.110			117.730			109.880				32.960			2.160
EQT 305		4.110			117.730			109.880				32.960			2.160
ASU-T10-02		4.110			117.730			109.880				32.960			2.160
EQT 306		4.110			117.730			109.880				32.960			2.160
ASU-T10-03		4.110			117.730			109.880				32.960			2.160
EQT 307		4.110			117.730			109.880				32.960			2.160
ASU-T10-04A		4.110			117.730			109.880				32.960			2.160
EQT 308		4.110			117.730			109.880				32.960			2.160
ASU-T10-04B		4.110			117.730			109.880				32.960			2.160

EMISSION RATES FOR CRITERIA POLLUTANTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER2006002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

All phases

Subject Item	PM ₁₀			SO ₂			NOx			CO			VOC		
	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year
EQT 309 ASU-T10-05													0.003	0.056	0.013
EQT 310 ASU-T10-06A													0.026	1.040	0.112
EQT 311 ASU-T10-06B													0.026	1.040	0.112
EQT 312 ASU-T10-06C													0.026	1.040	0.112
EQT 313 ASU-T10-07													0.044	10.208	0.194
EQT 314 ASU-T10-08													0.044	10.208	0.194
EQT 315 ASU-T10-09													<	0.001	0.014
EQT 316 ASU-T10-10													<	0.001	0.028
EQT 317 ASU-T10-11													<	0.001	< 0.001
EQT 318 ASU-T10-12													<	0.001	< 0.001
EQT 319 ASU-T10-13													0.044	10.208	0.194
EQT 321 ASU-T10-20A													0.014	0.048	0.063
EQT 322 ASU-T10-21													0.001	0.036	0.004
EQT 323 ASU-T10-23													0.044	10.208	0.194
EQT 324 ASU-T10-24													0.044	10.208	0.194
EQT 325 ASU-T10-25													0.044	10.208	0.194
EQT 326 ASU-T10-61													<	0.001	0.018
EQT 327 ASU-T10-62													1.352	1.743	5.920

EMISSION RATES FOR CRITERIA POLLUTANTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

All phases

Subject Item	PM ₁₀			SO ₂			NOx			CO			VOC		
	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year
EQT 328													2.242	10.110	9.822
ASU-T10-63													0.013	0.014	0.063
EQT 329													0.002	0.003	0.008
ASU-T10-64													0.034	3.630	0.148
EQT 330													0.034	3.630	0.148
ASU-T10-65													0.001	0.100	0.002
EQT 331													0.114	0.156	0.500
ASU-T6-227													1.340	1.340	5.870
EQT 332													0.029	0.760	0.128
ASU-T6-249													0.014	0.048	0.063
EQT 333													15.850	3.620	
ASU-T6-903													15.850	3.620	
EQT 334													15.850	3.620	
ASU-T6-904													15.850	3.620	
EQT 379													15.850	3.620	
ASU-NL-SL-91													15.850	3.620	
EQT 380													15.850	3.620	
ASU-SFSB-250B													15.850	3.620	
EQT 381													15.850	3.620	
ASU-T10-208													15.850	3.620	
EQT 382	6.080			156.860			57.700			15.850					
ETH-BA-101															
EQT 383	6.080			156.860			57.700			15.850					
ETH-BA-102															
EQT 384	6.080			156.860			57.700			15.850					
ETH-BA-103															
EQT 385	6.080			156.860			57.700			15.850					
ETH-BA-104															
EQT 386	6.080			156.860			57.700			15.850					
ETH-BA-105															
EQT 387	6.080			156.860			57.700			15.850					
ETH-BA-106															
EQT 388	5.310			115.47			47.01			13.230					
ETH-BA-107															
EQT 389	0.070	0.080	0.290	0.250	2.980	1.090	0.870	1.400	3.800	0.730	0.870	3.190	0.050	0.060	0.219
ETH-BA-201															

EMISSION RATES FOR CRITERIA POLLUTANTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

All phases

Subject Item	PM ₁₀			SO ₂			NOx			CO			VOC		
	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year
EQT 390 ETH-BA-401	0.032	0.040	0.040	0.119	1.430	0.170	0.417	0.500	0.580	0.350	0.420	0.490	0.023	0.030	0.030
EQT 391 ETH-CT-201	5.406	11.093	23.678												
EQT 392 ETH-EFGF		242.534			194.647			2071.259				11270.09			
EQT 393 ETH-F-501		242.534			194.647			2071.259							4014.788
EQT 394 ETH-FA-403V	0.488	2.143	0.647							2.363	6.750	3.134	0.254	3.720	0.337
EQT 395 ETH-FB-207													0.029	8.301	0.126
EQT 396 ETH-FB-215													0.992	2.130	4.346
EQT 397 ETH-FB-253													2.362	2.867	10.347
EQT 398 ETH-FB-801													0.016	3.254	0.071
EQT 399 ETH-FB-802													0.994	2.130	4.352
EQT 400 ETH-IR-4													0.025	0.573	0.012
EQT 401 ETH-IR-4A													0.025	0.573	0.012
EQT 402 ETH-T-77-903													0.990	2.040	4.334
EQT 403 ETH-T-77-913													1.541	2.124	6.748
EQT 404 ETH-T-77-914													8.413		
EQT 405 ETH-T-77-915														8.413	
EQT 406 ETH-T-77-916														13.060	
EQT 407 ETH-T-77-929														2.808	

EMISSION RATES FOR CRITERIA POLLUTANTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

All phases

Subject Item	PM ₁₀			SO ₂			NOx			CO			VOC		
	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year
EQT 408													0.083	0.100	0.365
ETH-WW															
EQT 409	2.244	5.738	9.829												
ETH-Y7-902															
FUG 002															
STM-FE-1															
FUG 006															
ASU-FE-1															
FUG 008															
ETH-FE-1-E															
GRP 042	15.420	67.530	17.020	74.570	124.580	545.660	39.710	173.910	8.770						38.430
ETH-CAP															
GRP 043	5.970	26.140	68.490	29.980	219.850	962.930	69.950	288.880	4.320						18.920
STM-CAP															
GRP 044	0.448	1.962	0.460	2.015	3.922	17.180	21.343	93.481	9.057						39.611
ETH-FLARE															
GRP 045															
ETH-WOF															
GRP 046															
ETH-WWTKS															

Note: Emission rates in bold are from alternate scenarios and are not included in permitted totals

Permit Phase Totals:

PM10: 130.12 tons/yr
 SO2: 377.83 tons/yr
 NOx: 1530.15 tons/yr
 CO: 563.09 tons/yr
 VOC: 392.97 tons/yr

Emission rates Notes:

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

All phases

Subject Item	1,1,2-Trichloroethane			1,2-Dichloroethane			1,3-Butadiene			Ammonia			Benzene		
	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year
EQT 020 STM-B7-901															
EQT 021 STM-B7-902															
EQT 022 STM-B7-903															
EQT 024 STM-T7-918															
EQT 295 ASU-BLK-SP															
EQT 296 ASU-D7-951															
EQT 298 ASU-HPSS															
EQT 299 ASU-Holding Pond															
EQT 300 ASU-NL-91															
EQT 301 ASU-S-2															
EQT 302 ASU-SFSB-250A															
EQT 303 ASU-SUMPS															
EQT 304 ASU-T10-01	< 0.001	0.002	< 0.001	0.058	0.236	0.255				< 0.001	0.001	0.002	0.002	0.118	0.009
EQT 305 ASU-T10-02	< 0.001	0.002	< 0.001	0.058	0.236	0.255				< 0.001	< 0.001	0.001	0.002	0.118	0.009
EQT 306 ASU-T10-03	< 0.001	0.003	< 0.001	0.089	0.454	0.389				0.053	0.153	0.234	0.106	0.803	0.465
EQT 307 ASU-T10-04A	< 0.001	0.029	0.001	0.300	2.655	1.312				0.079	0.418	0.347	0.098	1.199	0.429
EQT 308 ASU-T10-04B	< 0.001	0.029	0.001	0.300	2.655	1.312				0.079	0.418	0.347	0.098	1.199	0.429
EQT 309 ASU-T10-05	< 0.001	< 0.001	< 0.001	0.001	0.007	0.003				< 0.001	< 0.001	0.001	0.006	0.002	

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

All phases

Subject Item	Biphenyl			Chloroform			Dichloromethane			Ethyl benzene			Formaldehyde		
	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year
EQT 020 STM-B7-901															0.070
EQT 021 STM-B7-902															0.070
EQT 022 STM-B7-903															0.070
EQT 024 STM-T7-918										<	0.001	0.340	0.001		
EQT 295 ASU-BLK-SP										<	0.001	0.010	<	0.001	
EQT 296 ASU-D7-951															
EQT 298 ASU-HPSS															
EQT 299 ASU-Holding Pond										<	0.001	0.001	<	0.001	
EQT 300 ASU-NL-91															
EQT 301 ASU-S-2															
EQT 302 ASU-SFSB-250A															
EQT 303 ASU-SUMPS															
EQT 304 ASU-T10-01				0.036	0.237	0.159	<	0.001	0.010	<	0.001	0.013	0.001		
EQT 305 ASU-T10-02				0.036	0.237	0.159	<	0.001	0.010	<	0.001	0.013	0.001		
EQT 306 ASU-T10-03				0.156	1.277	0.684	<	0.001	0.036	0.001	0.001	0.133	0.004		
EQT 307 ASU-T10-04A				0.275	3.676	1.205	0.001	0.207	0.005	<	0.001	0.104	0.002		
EQT 308 ASU-T10-04B				0.275	3.676	1.205	0.001	0.207	0.005	<	0.001	0.104	0.002		
EQT 309 ASU-T10-05				0.001	0.017	0.005	<	0.001	0.001	<	0.001	0.001	<	0.001	

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

All phases

Methanol		Naphthalene		Polynuclear Aromatic Hydrocarbons		Styrene		Toluene	
Subject Item	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year
EQT 020 STM-B7-901									
EQT 021 STM-B7-902									
EQT 022 STM-B7-903									
EQT 024 STM-T7-918	< 0.001	0.001	< 0.001						
EQT 295 ASU-BLK-SP									
EQT 296 ASU-D7-951	< 0.001	0.010	< 0.001						
EQT 298 ASU-HPSS							< 0.001	< 0.001	< 0.001
EQT 299 ASU-Holding Pond							< 0.001	< 0.001	< 0.001
EQT 300 ASU-NL-91							< 0.001	< 0.002	< 0.002
EQT 301 ASU-S-2							< 0.001	< 0.001	0.001
EQT 302 ASU-SFBB-250A							< 0.001	< 0.001	< 0.001
EQT 303 ASU-SUMPS							< 0.001	< 0.001	0.001
EQT 304 ASU-T10-01	0.003	0.007	0.012						
EQT 305 ASU-T10-02	0.003	0.007	0.012						
EQT 306 ASU-T10-03	< 0.001	< 0.001	< 0.001						
EQT 307 ASU-T10-04A	0.003	0.014	0.012						
EQT 308 ASU-T10-04B	0.003	0.014	0.012						
EQT 309 ASU-T10-05	< 0.001	< 0.001	< 0.001				< 0.001	< 0.001	< 0.001

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

All phases

Xylene (mixed isomers)				n-Hexane				n-butyl alcohol			
Subject Item	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Avg lb/hr	Max lb/hr	Tons/Year
EQT 020 STM-B7-901											
EQT 021 STM-B7-902											
EQT 022 STM-B7-903											
EQT 024 STM-T7-918	0.002	0.400	0.007	0.002	0.040	0.007					
EQT 295 ASU-BLK-SP	< 0.001	0.080	0.003	0.006	0.700	0.027					
EQT 296 ASU-07-951							< 0.001	< 0.001	< 0.001	< 0.001	
EQT 298 ASU-HPSS	< 0.001	0.001	0.002	0.008	0.044	0.034	0.017	0.045	0.017	0.045	0.074
EQT 299 ASU-Holding Pond	< 0.001	0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.002	0.002	0.013	0.009	
EQT 300 ASU-NL-91	< 0.001	0.001	0.002	0.008	0.044	0.034	0.017	0.045	0.017	0.045	0.074
EQT 301 ASU-S-2	< 0.001	< 0.001	< 0.001	0.016	0.028	0.070	0.001	0.002	0.002	0.006	
EQT 302 ASU-SFSB-250A	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.001				
EQT 303 ASU-SUMPS	< 0.001	0.001	0.002	0.011	0.020	0.049	< 0.001	0.001	0.001	0.001	0.001
EQT 304 ASU-T10-01				0.002	0.160	0.007	0.001	0.014	0.014	0.005	
EQT 305 ASU-T10-02				0.002	0.160	0.007	0.001	0.014	0.014	0.005	
EQT 306 ASU-T10-03				0.037	5.068	0.163	< 0.001	< 0.001	< 0.001	< 0.001	0.001
EQT 307 ASU-T10-04A				0.020	3.830	0.086	0.002	0.002	0.057	0.057	0.009
EQT 308 ASU-T10-04B				0.020	3.830	0.086	0.002	0.002	0.570	0.570	0.009
EQT 309 ASU-T10-05				< 0.001	0.003	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

All phases

1,1,2-Trichloroethane			1,2-Dichloroethane			1,3-Butadiene			Ammonia			Benzene			
Subject Item	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year
EQT 310 ASU-T10-06A	< 0.001	< 0.001	< 0.001	0.001	0.016	0.006	<	0.001	0.008	<	0.001	0.005	<	0.001	
EQT 311 ASU-T10-06B	< 0.001	< 0.001	< 0.001	0.001	0.016	0.006	<	0.001	0.008	<	0.001	0.005	<	0.001	
EQT 312 ASU-T10-06C	< 0.001	< 0.001	< 0.001	0.001	0.016	0.006	<	0.001	0.008	<	0.001	0.005	<	0.001	
EQT 313 ASU-T10-07	< 0.001	< 0.001	< 0.001	0.001	0.024	0.002	<	0.001	0.005	<	0.001	0.006	<	0.001	
EQT 314 ASU-T10-08	< 0.001	< 0.001	< 0.001	0.001	0.024	0.002	<	0.001	0.005	<	0.001	0.006	<	0.001	
EQT 315 ASU-T10-09	< 0.001	< 0.001	< 0.001	0.001	0.024	0.002	<	0.001	0.005	<	0.001	0.006	<	0.001	
EQT 316 ASU-T10-10	< 0.001	< 0.001	< 0.001	0.001	0.024	0.002	<	0.001	0.005	<	0.001	0.006	<	0.001	
EQT 317 ASU-T10-11	< 0.001	< 0.001	< 0.001	0.001	0.024	0.002	<	0.001	0.005	<	0.001	0.006	<	0.001	
EQT 318 ASU-T10-12	< 0.001	< 0.001	< 0.001	0.001	0.024	0.002	<	0.001	0.005	<	0.001	0.006	<	0.001	
EQT 319 ASU-T10-13	< 0.001	< 0.001	< 0.001	0.001	0.024	0.002	<	0.001	0.005	<	0.001	0.006	<	0.001	
EQT 320 ASU-T10-18							0.039	0.040	0.171						
EQT 321 ASU-T10-20A	< 0.001	< 0.001	< 0.001	0.001	< 0.001	0.001	<	0.001	0.004	<	0.001	< 0.001	<	0.001	
EQT 322 ASU-T10-21	< 0.001	< 0.001	< 0.001	0.001	< 0.001	0.001	<	0.001	0.004	<	0.001	< 0.001	<	0.001	
EQT 323 ASU-T10-23	< 0.001	< 0.001	< 0.001	0.001	< 0.001	0.002	<	0.001	0.005	<	0.001	< 0.001	<	0.001	
EQT 324 ASU-T10-24	< 0.001	< 0.001	< 0.001	0.001	< 0.001	0.002	<	0.001	0.005	<	0.001	< 0.001	<	0.001	
EQT 325 ASU-T10-25	< 0.001	< 0.001	< 0.001	0.001	< 0.001	0.002	<	0.001	0.005	<	0.001	< 0.001	<	0.001	
EQT 326 ASU-T10-61										<	0.001	< 0.001	<	0.001	
EQT 327 ASU-T10-62										<	0.001	< 0.001	<	0.001	

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

All phases

Subject Item	Biphenyl			Chloroform			Dichloromethane			Ethyl benzene			Formaldehyde						
	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year				
EQT 310 ASU-T10-06A				0.001	0.017	0.004	<	0.001	<	0.001	<	0.001	<	0.001	<	0.001			
EQT 311 ASU-T10-06B				0.001	0.017	0.004	<	0.001	<	0.001	<	0.001	<	0.001	<	0.001			
EQT 312 ASU-T10-06C				0.001	0.017	0.004	<	0.001	<	0.001	<	0.001	<	0.001	<	0.001			
EQT 313 ASU-T10-07				<	0.001	0.022	<	0.001	<	0.001	<	0.001	<	0.001	<	0.001			
EQT 314 ASU-T10-08				<	0.001	0.022	<	0.001	<	0.001	<	0.001	<	0.001	<	0.001			
EQT 315 ASU-T10-09				<	0.001	0.001	<	0.001	<	0.001	<	0.001	<	0.001	<	0.001			
EQT 316 ASU-T10-10				<	0.001	<	0.001	<	0.001	<	0.001	<	0.001	<	0.001	<	0.001		
EQT 317 ASU-T10-11				<	0.001	<	0.001	<	0.001	<	0.001	<	0.001	<	0.001	<	0.001		
EQT 318 ASU-T10-12				<	0.001	0.022	<	0.001	<	0.001	<	0.001	<	0.001	<	0.001	<	0.001	
EQT 319 ASU-T10-13				<	0.001	0.022	<	0.001	<	0.001	<	0.001	<	0.001	<	0.001	<	0.001	
EQT 320 ASU-T10-18																			
EQT 321 ASU-T10-20A				<	0.001	<	0.001	<	0.001	<	0.001	<	0.001	<	0.001	<	0.001		
EQT 322 ASU-T10-21				<	0.001	<	0.001	<	0.001	<	0.001	<	0.001	<	0.001	<	0.001		
EQT 323 ASU-T10-23				<	0.001	0.022	<	0.001	<	0.001	<	0.001	<	0.001	<	0.001	<	0.001	
EQT 324 ASU-T10-24				<	0.001	0.022	<	0.001	<	0.001	<	0.001	<	0.001	<	0.001	<	0.001	
EQT 325 ASU-T10-25				<	0.001	0.022	<	0.001	<	0.001	<	0.001	<	0.001	<	0.001	<	0.001	
EQT 326 ASU-T10-61										<	0.001	<	0.001	<	0.001	<	0.001	<	0.001
EQT 327 ASU-T10-62										<	0.001	<	0.001	<	0.001	<	0.001	<	0.001

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER2006002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

All phases

		Methanol		Naphthalene		Polynuclear Aromatic Hydrocarbons		Styrene		Toluene	
Subject Item	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr
EQT 310 ASU-T10-06A	< 0.001	0.001	< 0.001							< 0.001	0.003 < 0.001
EQT 311 ASU-T10-06B	< 0.001	0.001	< 0.001							< 0.001	0.003 < 0.001
EQT 312 ASU-T10-06C	< 0.001	0.001	< 0.001							< 0.001	0.003 < 0.001
EQT 313 ASU-T10-07	< 0.001	0.007	0.001							< 0.001	0.004 < 0.001
EQT 314 ASU-T10-08	< 0.001	0.007	0.001							< 0.001	0.004 < 0.001
EQT 315 ASU-T10-09	< 0.001	< 0.001	< 0.001							< 0.001	< 0.001 < 0.001
EQT 316 ASU-T10-10	< 0.001	< 0.001	< 0.001							< 0.001	< 0.001 < 0.001
EQT 317 ASU-T10-11	< 0.001	< 0.001	< 0.001							< 0.001	< 0.001 < 0.001
EQT 318 ASU-T10-12	< 0.001	0.007	0.001							< 0.001	0.004 < 0.001
EQT 319 ASU-T10-13	< 0.001	0.007	0.001							< 0.001	0.004 < 0.001
EQT 320 ASU-T10-18										< 0.001	< 0.001 < 0.001
EQT 321 ASU-T10-20A	< 0.001	< 0.001	< 0.001							< 0.001	< 0.001 < 0.001
EQT 322 ASU-T10-21	< 0.001	< 0.001	< 0.001							< 0.001	< 0.001 < 0.001
EQT 323 ASU-T10-23	< 0.001	0.007	0.001							< 0.001	0.004 < 0.001
EQT 324 ASU-T10-24	< 0.001	0.007	0.001							< 0.001	0.004 < 0.001
EQT 325 ASU-T10-25	< 0.001	0.007	0.001							< 0.001	0.004 < 0.001
EQT 326 ASU-T10-61										< 0.001	< 0.001 < 0.001
EQT 327 ASU-T10-62										< 0.001	< 0.001 < 0.001

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

All phases

Subject Item	Xylene (mixed isomers)			n-Hexane			n-butyl alcohol		
	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year
EQT 310 ASU-T10-06A	<	0.001	<	0.001	<	0.001	<	0.003	< 0.001
EQT 311 ASU-T10-06B	<	0.001	<	0.001	<	0.001	<	0.003	< 0.001
EQT 312 ASU-T10-06C	<	0.001	<	0.001	<	0.001	<	0.003	< 0.001
EQT 313 ASU-T10-07	<	0.001	<	0.001	<	0.001	<	0.026	0.001
EQT 314 ASU-T10-08	<	0.001	<	0.001	<	0.001	<	0.026	0.001
EQT 315 ASU-T10-09	<	0.001	<	0.001	<	0.001	<	0.001	< 0.001
EQT 316 ASU-T10-10	<	0.001	<	0.001	<	0.001	<	0.001	< 0.001
EQT 317 ASU-T10-11	<	0.001	<	0.001	<	0.001	<	0.001	< 0.001
EQT 318 ASU-T10-12	<	0.001	<	0.001	<	0.001	<	0.026	0.001
EQT 319 ASU-T10-13	<	0.001	<	0.001	<	0.001	<	0.026	0.001
EQT 320 ASU-T10-18	<	0.001	<	0.001	<	0.001	<	0.001	< 0.001
EQT 321 ASU-T10-20A	<	0.001	<	0.001	<	0.001	<	0.001	< 0.001
EQT 322 ASU-T10-21	<	0.001	<	0.001	<	0.001	<	0.001	< 0.001
EQT 323 ASU-T10-23	<	0.001	<	0.001	<	0.001	<	0.026	0.001
EQT 324 ASU-T10-24	<	0.001	<	0.001	<	0.001	<	0.026	0.001
EQT 325 ASU-T10-25	<	0.001	<	0.001	<	0.001	<	0.026	0.001
EQT 326 ASU-T10-61	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
EQT 327 ASU-T10-62	< 0.001	< 0.001	< 0.001	0.006	0.010	0.028	< 0.001	< 0.001	< 0.001

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER2006002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

All phases

		1,1,2-Trichloroethane			1,2-Dichloroethane			1,3-Butadiene			Ammonia			Benzene					
Subject Item	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	
EQT 328 ASU-T10-63										<	0.001	0.001	0.001	0.001	0.001	0.002			
EQT 329 ASU-T10-64										<	0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001			
EQT 330 ASU-T10-65										<	0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001			
EQT 331 ASU-T6-227																			
EQT 332 ASU-T6-249																			
EQT 333 ASU-T6-903																			
EQT 334 ASU-T6-904																			
EQT 379 ASU-NL-SL-91																			
EQT 380 ASU-SFSE-250B																			
EQT 381 ASU-T10-20B	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.001	0.004	0.006	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	
EQT 392 ETH-EGF										94.789						19.007			
EQT 393 ETH-F-501										94.789						19.007			
EQT 395 ETH-FB-207										< 0.001	< 0.001	< 0.001		0.023	6.457	0.101			
EQT 396 ETH-FB-215														< 0.001	< 0.001	< 0.001	< 0.001		
EQT 397 ETH-FB-253										0.073	0.087	0.318		0.232	0.304	1.018			
EQT 398 ETH-FB-801																			
EQT 399 ETH-FB-802																			
EQT 400 ETH-LR4																	0.020	0.468	0.010

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

All phases

		Biphenyl			Chloroform			Dichloromethane			Ethyl benzene			Formaldehyde			
Subject Item	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year		
EQT 328										0.001	0.001	0.002					
ASU-T10-63										<	0.001	<	0.001	<	0.001		
EQT 329										<	0.001	<	0.001	<	0.001		
ASU-T10-64										<	0.001	<	0.001	<	0.001		
EQT 330																	
ASU-T10-65																	
EQT 331										0.001	0.070	0.003					
ASU-T6-227																	
EQT 332										0.001	0.070	0.003					
ASU-T6-249										<	0.001	<	0.001	<	0.001		
EQT 333																	
ASU-T6-903																	
EQT 334										0.001	0.020	0.003					
ASU-T6-904																	
EQT 379										0.001	0.003	0.002					
ASU-NL-SL-91										<	0.001	<	0.001	<	0.001		
EQT 380																	
ASU-SFSB-2508																	
EQT 381																	
ASU-T10-208																	
EQT 392		0.001															
ETH-EGF																	
EQT 393		0.001															
ETH-F-501																	
EQT 395										<	0.001	0.057	0.001				
ETH-FB-207																	
EQT 396	<	0.001	<	0.001	<	0.001	<	0.001	<	0.001	<	0.001	<	0.001	<	0.001	
ETH-F-215																	
EQT 397																	
ETH-FB-253																	
EQT 398																	
ETH-FB-801																	
EQT 399	<	0.001	<	0.001	<	0.001	<	0.001	<	0.001	<	0.001	<	0.001	<	0.001	
ETH-FB-802																	
EQT 400										<	0.001	<	0.004	<	0.001	<	0.001
ETH-LR-4																	

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

All phases

Subject Item	Methanol			Naphthalene			Polynuclear Aromatic Hydrocarbons			Styrene			Toluene			
	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	
EQT 328													<	0.001	0.001	0.002
ASU-T10-63													<	0.001	0.001	0.001
EQT 329													<	0.001	0.001	0.001
ASU-T10-64													<	0.001	0.001	0.001
EQT 330													<	0.001	0.001	0.001
ASU-T10-65													<	0.001	0.001	0.001
EQT 331													<	0.001	0.001	0.001
ASU-T16-227													<	0.001	0.001	0.001
EQT 332													<	0.001	0.001	0.001
ASU-T16-249													<	0.001	0.001	0.001
EQT 333													<	0.001	0.001	0.001
ASU-T16-903													<	0.001	0.001	0.001
EQT 334													<	0.001	0.001	0.001
ASU-T16-904													<	0.001	0.001	0.001
EQT 379													<	0.001	0.001	0.002
ASU-NL-SL-91													<	0.001	0.001	0.002
EQT 380													<	0.001	0.001	0.001
ASU-SFSB-250B													<	0.001	0.001	0.001
EQT 381	<	0.001	<	0.001	<	0.001							<	0.001	0.001	0.001
ASU-T10-208													<	0.001	0.001	0.001
EQT 392		95.276					0.259			0.039			1.294			100.971
EQT 393		95.276					0.259			0.039			1.294			100.971
ETH-F-501																
EQT 395	<	0.001	0.004	<	0.001	<	0.001	<	0.001	0.001	0.295	0.004	0.004	1.114	0.017	
ETH-FB-207																
EQT 396				0.001	0.090	0.003				<	0.001	<	0.001	0.001	0.010	0.001
ETH-FB-215																
EQT 397	<	0.001	<	0.001	0.002	<	0.001	<	0.001	0.025	0.031	0.109	0.020	0.029	0.090	
ETH-FB-253																
EQT 398	0.014	2.746	0.060													
ETH-FB-801																
EQT 399							0.001	0.090	0.003					<	0.001	0.010
ETH-FB-802																
EQT 400							<	0.001	<	0.001	<	0.001	0.020	<	0.001	0.003
ETH-IR4																

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

All phases

Xylene (mixed isomers)		n-Hexane		n-butyl alcohol	
Subject Item	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr
EQT 328 ASU-T10-63	< 0.001	0.001	0.002	0.009	0.052
EQT 329 ASU-T10-64	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
EQT 330 ASU-T10-65	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
EQT 331 ASU-T16-227	0.005	0.580	0.024		
EQT 332 ASU-T16-249	0.005	0.580	0.024		
EQT 333 ASU-T16-903	< 0.001	0.030	0.001		
EQT 334 ASU-T16-904	0.005	0.120	0.020		
EQT 379 ASU-NL-SL-91	< 0.001	0.001	0.002	0.008	0.044
EQT 380 ASU-SFSB-250B	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
EQT 381 ASU-T10-20B			< 0.001	< 0.001	< 0.001
EQT 392 ETH-EGF		0.180			1.692
EQT 393 ETH-F-501		0.180			1.692
EQT 395 ETH-FB-207	< 0.001	0.034	0.001		
EQT 396 ETH-FB-215	< 0.001	0.010	0.001		
EQT 397 ETH-FB-253	0.001	0.001	0.003	0.004	0.016
EQT 398 ETH-FB-801					
EQT 399 ETH-FB-802	< 0.001	0.010	0.001		
EQT 400 ETH-ER-4	< 0.001	0.002	< 0.001		

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER2006002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

All phases

Subject Item	1,1,2-Trichloroethane			1,2-Dichloroethane			1,3-Butadiene			Ammonia			Benzene		
	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year
EQT 401 ETH-R-4A													0.020	0.468	0.010
EQT 402 ETH-T7-903															
EQT 403 ETH-T7-913													0.452	0.731	1.979
EQT 404 ETH-T7-914													4.949		
EQT 405 ETH-T7-915													4.949		
EQT 406 ETH-T7-916							0.191						5.298		
EQT 407 ETH-T7-929							0.087						0.282		
EQT 408 ETH-WW													0.017	0.021	0.075
FUG 002 STM-FE-1													0.001	0.001	0.004
FUG 006 ASU-FE-1													< 0.001	< 0.001	0.001
FUG 008 ETH-FE-1-E															
GRP 043 STM-CAP															
GRP 044 ETH-FLARE															
GRP 045 ETH-WAOF															
GRP 046 ETH-WWTKS															
													2.035	8.914	

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

All phases

Biphenyl			Chloroform			Dichloromethane			Ethyl benzene			Formaldehyde			
Subject Item	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year
EQT 401 ETH-LR-4A	< 0.001	< 0.001	< 0.001							< 0.001	< 0.001	< 0.001			
EQT 402 ETH-T7-903	< 0.001	< 0.001	< 0.001							< 0.001	< 0.001	< 0.001			
EQT 403 ETH-T7-913	< 0.001	< 0.001	< 0.001							0.026	0.033	0.116			
EQT 404 ETH-T7-914										0.233					
EQT 405 ETH-T7-915										0.233					
EQT 406 ETH-T7-916										0.065					
EQT 407 ETH-T7-929										0.008					
EQT 408 ETH-ww										< 0.001	< 0.001	< 0.001			
FUG 002 STM-FE-1										0.005	0.006	0.020			
FUG 006 ASU-FE-1										0.003	0.003	0.012			
FUG 008 ETH-FE-1-E	< 0.001	< 0.001	< 0.001							0.078	0.078	0.342			
GRP 043 STM-CAP													0.001	0.003	
GRP 044 ETH-FLARE	< 0.001		< 0.001										0.009	0.037	
GRP 045 ETH-WAOF													0.313	1.373	
GRP 046 ETH-wwtks															

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

All phases

All phases		Methanol			Naphthalene			Polynuclear Aromatic Hydrocarbons			Styrene			Toluene		
Subject Item	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	
EQT 401 ETH-LR4A	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.003	0.079	0.002		
EQT 402 ETH-T7-903	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.010	0.001		
EQT 403 ETH-T7-913	0.066	0.079	0.289	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.153	0.192	0.671	0.183	0.251	0.802		
EQT 404 ETH-T7-914				0.518			< 0.001			0.543			1.088			
EQT 405 ETH-T7-915				0.518			< 0.001			0.543			1.088			
EQT 406 ETH-T7-916				0.067			< 0.001			0.415			0.970			
EQT 407 ETH-T7-929				0.004			< 0.001			0.040			0.029			
EQT 408 ETH-WW	< 0.001	< 0.001	< 0.001				< 0.001	< 0.001		0.002	0.002	0.003	0.003	0.003	0.012	
FUG 002 STM-FE-1	0.322	0.386	1.410										0.006	0.008	0.030	
FUG 006 ASU-FE-1																
FUG 008 ETH-FE-1-E	0.281	0.281	1.230	0.156	0.156	0.538	< 0.001	< 0.001	0.001	0.088	0.088	0.388	0.076	0.076	0.330	
GRP 043 STM-CAP																
GRP 044 ETH-FLARE	0.263	1.150	< 0.001				< 0.001	< 0.001		0.005			0.020	0.254	1.111	
GRP 045 ETH-WAOF			0.003				0.015	< 0.001		< 0.001	0.056		0.244	0.039	0.172	
GRP 046 ETH-WWTKS			0.807				3.533	< 0.001		< 0.001	0.507		2.218	0.581	2.544	

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

All phases

Xylene (mixed isomers)		n-Hexane		n-butyl alcohol	
Subject Item	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr
EQT 401 ETH-LR4A	< 0.001	0.002	0.001		
EQT 402	< 0.001	0.010	0.001		
EQT 403 ETH-T7-903	0.014	0.018	0.062	< 0.001	0.001
EQT 404 ETH-T7-914		0.039			
EQT 405 ETH-T7-915		0.039			
EQT 406 ETH-T7-916		0.043		0.027	
EQT 407 ETH-T7-929		0.001		0.001	
EQT 408	< 0.001	< 0.001	0.001		
EHT-ww					
FUG 002 STM-FE-1	0.020	0.029	0.110	0.002	0.008
FUG 006 ASU-FE-1	0.019	0.023	0.084	0.013	0.015
FUG 008 ETH-FE-1-E	0.007	0.031	0.038	0.038	0.166
GRP 043 STM-CAP					
GRP 044 ETH-FLARE	0.001		0.002	0.051	0.247
GRP 045 ETH-WAOF	0.002		0.007	0.005	0.020
GRP 046 ETH-WWTKS	0.020		0.088	0.023	0.099

Note: Emission rates in bold are from alternate scenarios and are not included in permitted totals

Permit Parameter Totals:

1,1,2-Trichloroethane: <0.01 tons/yr
 1,2-Dichloroethane: 3.558 tons/yr

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

All phases

1,3-Butadiene: 5.215 tons/yr
Ammonia: 1.12 tons/yr
Benzene: 18.06 tons/yr
Biphenyl: <0.001 tons/yr
Chloroform: 3.44 tons/yr
Dichloromethane: 0.01 tons/yr
Ethyl benzene: 1.95 tons/yr
Formaldehyde: 0.32 tons/yr
Methanol: 2.50 tons/yr
n-butyl alcohol: 0.43 tons/yr
n-Hexane: 1.29 tons/yr
Naphthalene: 5.80 tons/yr
Polynuclear Aromatic Hydrocarbons: 0.001 tons/yr
Styrene: 3.66 tons/yr
Toluene: 5.49 tons/yr
Xylene (mixed isomers): 0.48 tons/yr

Emission Rates Notes:

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex
Activity Number: PER20060002
Permit Number: 2743-V2
Air - Title V Regular Permit Renewal

SPECIFIC REQUIREMENTS

EQT020 STM-B7-901 - Utility Steam Boiler No. 1

- 1 Opacity \leq 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
 - Which Months: All Year Statistical Basis: None specified
- 2 Total suspended particulate \leq 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
 - Which Months: All Year Statistical Basis: None specified
- 3 Sulfur dioxide \leq 2000 ppm at standard conditions. [LAC 33:III.1503.C]
 - Which Months: All Year Statistical Basis: Three-hour average
- 4 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate compliance with the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]
- 5 Submit report: Due annually, by the 31st of March, in accordance with LAC 33:III.918. Report data required to demonstrate compliance with the provisions of LAC 33:III.Chapter 15. [LAC 33:III.1513]
- 6 Submit quarterly reports of three-hour excess emissions and prompt reports of emergency occurrences, in accordance with LAC 33:III.927. [LAC 33:III.1513]
- 7 Shall submit initial report as required by 40 CFR 63.7506(b) - Subpart DDDDDD. [40 CFR 63.7506(b)]

EQT021 STM-B7-902 - Utility Steam Boiler No. 2

- 8 Opacity \leq 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
 - Which Months: All Year Statistical Basis: None specified
- 9 Total suspended particulate \leq 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
 - Which Months: All Year Statistical Basis: None specified
- 10 Sulfur dioxide \leq 2000 ppm at standard conditions. [LAC 33:III.1503.C]
 - Which Months: All Year Statistical Basis: Three-hour average
- 11 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate compliance with the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]
- 12 Submit report: Due annually, by the 31st of March, in accordance with LAC 33:III.918. Report data required to demonstrate compliance with the provisions of LAC 33:III.Chapter 15. [LAC 33:III.1513]
- 13 Submit quarterly reports of three-hour excess emissions and prompt reports of emergency occurrences, in accordance with LAC 33:III.927. [LAC 33:III.1513]
- 14 Shall submit initial report as required by 40 CFR 63.7506(b) - Subpart DDDDDD. [40 CFR 63.7506(b)]

EQT022 STM-B7-903 - Utility Steam Boiler No. 3

- 15 Opacity \leq 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
 - Which Months: All Year Statistical Basis: None specified
- 16 Total suspended particulate \leq 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
 - Which Months: All Year Statistical Basis: None specified

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

STM-B7-903 - Utility Steam Boiler No. 3**EQT022**

17 Sulfur dioxide <= 2000 ppm at standard conditions. [LAC 33:III.1503.C]

Which Months: All Year Statistical Basis: Three-hour average

18 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate compliance with the provisions of LAC 33:III, Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

19 Submit report: Due annually, by the 31st of March, in accordance with LAC 33:III.918. Report data required to demonstrate compliance with the provisions of LAC 33:III.Chapter 15. [LAC 33:III.1513]

20 Submit quarterly reports of three-hour excess emissions and prompt reports of emergency occurrences, in accordance with LAC 33:III.927. [LAC 33:III.1513]

21 Shall submit initial report as required by 40 CFR 63.7506(b) - Subpart DDDDDD. [40 CFR 63.7506(b)]

STM-T7-918 - No. 2 Fuel Oil Tank**EQT024**

22 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. The tank shall be equipped with a fixed roof - Determined as MACT. [LAC 33:III.5109.A]

EQT295**ASU-BLK-SP - Black Tanks Sump**

23 No additional control is determined as MACT. [LAC 33:III.5109.A]

EQT298**ASU-HPSS - Holding Pond Inlet/Holding Pond Skimming Section**

24 No additional control is determined as MACT. [LAC 33:III.5109.A]

EQT299**ASU-Holding Pond - Holding Ponds (HP-91/HP-92)**

25 No additional control is determined as MACT. [LAC 33:III.5109.A]

EQT300**ASU-NL-91 - Storm Water Diversion Pond - North**

26 No additional control is determined as MACT. [LAC 33:III.5109.A]

EQT301

27 No additional control is determined as MACT. [LAC 33:III.5109.A]

EQT302**ASU-SFSB-250A - Sand Filter Settling Basin - North**

28 No additional control is determined as MACT. [LAC 33:III.5109.A]

EQT303**ASU-SUMPS - CPI Sump, Junction Box, Diversion Box, and Mixing Box**

29 No additional control is determined as MACT. [LAC 33:III.5109.A]

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

EQT304 ASU-T10-01 - Equalization Tank

30 No additional control is determined as MACT. [LAC 33:III.5|09.A]

EQT305 ASU-T10-02 - Inventory Tank

31 No additional control is determined as MACT. [LAC 33:III.5|09.A]

EQT306 ASU-T10-03 - pH Adjustment Splitter Tank

32 No additional control is determined as MACT. [LAC 33:III.5|09.A]

EQT307 ASU-T10-04A - Aeration Tank A

33 No additional control is determined as MACT. [LAC 33:III.5|09.A]

EQT308 ASU-T10-04B - Aeration Tank B

34 No additional control is determined as MACT. [LAC 33:III.5|09.A]

EQT309 ASU-T10-05 - Flocculator / Splitter Tank

35 No additional control is determined as MACT. [LAC 33:III.5|09.A]

EQT310 ASU-T10-06A - Clarifier A

36 No additional control is determined as MACT. [LAC 33:III.5|09.A]

EQT311 ASU-T10-06B - Clarifier B

37 No additional control is determined as MACT. [LAC 33:III.5|09.A]

EQT312 ASU-T10-06C - Clarifier C

38 No additional control is determined as MACT. [LAC 33:III.5|09.A]

EQT313 ASU-T10-07 - Recycle Sludge Tank

39 No additional control is determined as MACT. [LAC 33:III.5|09.A]

EQT314 ASU-T10-08 - Scum Tank

40 No additional control is determined as MACT. [LAC 33:III.5|09.A]

EQT315 ASU-T10-09 - Filter Feed Tank

41 No additional control is determined as MACT. [LAC 33:III.5|09.A]

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasio North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

EQT316 ASU-T10-10 - Clearwell Tank

42 No additional control is determined as MACT. [LAC 33:III.5109.A]

EQT317 ASU-T10-11 - Filter Backwash Holding Tank

43 No additional control is determined as MACT. [LAC 33:III.5109.A]

EQT318 ASU-T10-12 - Primary Sludge Thickener

44 No additional control is determined as MACT. [LAC 33:III.5109.A]

EQT319 ASU-T10-13 - Thickener Supernatant Tank

45 No additional control is determined as MACT. [LAC 33:III.5109.A]

EQT321 ASU-T10-20A - Filter Area Tank and Sump

46 No additional control is determined as MACT. [LAC 33:III.5109.A]

EQT322 ASU-T10-21 - Effluent Holding Tank

47 No additional control is determined as MACT. [LAC 33:III.5109.A]

EQT323 ASU-T10-23 - Secondary Sludge Thickener

48 No additional control is determined as MACT. [LAC 33:III.5109.A]

EQT324 ASU-T10-24 - Secondary Sludge Thickener

49 No additional control is determined as MACT. [LAC 33:III.5109.A]

EQT325 ASU-T10-25 - Thickener Supernatant Tank

50 No additional control is determined as MACT. [LAC 33:III.5109.A]

EQT326 ASU-T10-61 - DAF Feed Tank

51 No additional control is determined as MACT. [LAC 33:III.5109.A]

EQT327 ASU-T10-62 - Coagulation Tank

52 No additional control is determined as MACT. [LAC 33:III.5109.A]

EQT328 ASU-T10-63 - Flootation Tank

53 No additional control is determined as MACT. [LAC 33:III.5109.A]

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

EQT329 ASU-T10-64 - DAF Effluent Tank

54 No additional control is determined as MACT. [LAC 33:III.5109.A]

EQT330 ASU-T10-65 - DAF Float Tank

55 No additional control is determined as MACT. [LAC 33:III.5109.A]

EQT331 ASU-T6-227 - Black Tank

56 No additional control is determined as MACT. [LAC 33:III.5109.A]

EQT332 ASU-T6-249 - Black Tank

57 No additional control is determined as MACT. [LAC 33:III.5109.A]

EQT333 ASU-T6-903 - Press Feed Tank (FB-926)

58 No additional control is determined as MACT. [LAC 33:III.5109.A]

EQT334 ASU-T6-904 - Oily Solids Wastewater Tank (FB-927)

59 No additional control is determined as MACT. [LAC 33:III.5109.A]

EQT335 ASU-FA-251 - Quench Surge Tank

60 Equip with a vapor loss control system, consisting of a gathering system capable of collecting volatile organic compound vapors and a vapor disposal system capable of processing such organic vapors. All tank gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place. [LAC 33:III.2103.A]

61 VOC, Total \geq 95 % control efficiency using a vapor loss control system. This limitation does not apply during periods of planned routine maintenance which may not exceed 240 hours per year. [LAC 33:III.2103.E.1]
Which Months: All Year Statistical Basis: None specified

62 Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3-a-e. [LAC 33:III.2103.H.3]

63 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in LAC 33:III.2103.I.1 - 7, as applicable. [LAC 33:III.2103.I]
64 Shall comply with LAC 33:III.2103 - Determined as MACT. [LAC 33:III.5109.A]**EQT336 ASU-FA-252 - Quench Off-Gas Knock-Out Pot**

65 Vent shall be routed to the Alcohol Unit Fuel Gas System - Determined as MACT. [LAC 33:III.5109.A]

EQT337 ASU-FA-253 - Quench Reactor

66 Vent shall be routed to the Alcohol Unit Fuel Gas System - Determined as MACT. [LAC 33:III.5109.A]

EQT338 ASU-FB-254 - Quench Solid Settling Tank

SPECIFIC REQUIREMENTS

AI ID: 3271 - Saso North America Inc - Lake Charles Chemical Complex
 Activity Number: PER20060002
 Permit Number: 2743-V2
 Air - Title V Regular Permit Renewal

ASU-FB-254 - Quench Solid Settling Tank

- 67 Equip with a vapor loss control system, consisting of a gathering system capable of collecting volatile organic compound vapors and a vapor disposal system capable of processing such organic vapors. All tank gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place. [LAC 33:III.2103.A]
 68 VOC, Total >= 95 % control efficiency using a vapor loss control system. This limitation does not apply during periods of planned routine maintenance which may not exceed 240 hours per year. [LAC 33:III.2103.E.]

Which Months: All Year Statistical Basis: None specified

- 69 Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3.a.e. [LAC 33:III.2103.H.3]

- 70 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in LAC 33:III.2103.I.1 - 7, as applicable. [LAC 33:III.2103.I.]

- 71 Shall comply with LAC 33:III.2103 - Determined as MACT. [LAC 33:III.5109.A]

EQT339 - ALC - Alcohol Unit Fuel Gas System

- 72 Shall comply with all applicable permit limits and requirements of the current permit for the Alcohol Unit (ALC). [LAC 33:III.501.C.6]

EQT379 - ASU-SL-91 - Storm Water Diversion Pond - South

- 73 No additional control is determined as MACT. [LAC 33:III.5109.A]

EQT380 - ASU-SFSSB-250B - Sand Filter Settling Basin - South

- 74 No additional control is determined as MACT. [LAC 33:III.5109.A]

EQT381 - ASU-T10-20B - Filter Area Tank and Sump

- 75 No additional control is determined as MACT. [LAC 33:III.5109.A]

EQT382 - ETH-BA-101 - Ethylene Cracking Furnace

- 76 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
 Which Months: All Year Statistical Basis: None specified

- 77 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]

Which Months: All Year Statistical Basis: None specified

- 78 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate exemption from the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

EQT383 - ETH-BA-102 - Ethylene Cracking Furnace

- 79 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
 Which Months: All Year Statistical Basis: None specified

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

EQT383 ETH-BA-102 - Ethylene Cracking Furnace

- 80 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
 Which Months: All Year Statistical Basis: None specified
 81 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate exemption from the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

EQT384 ETH-BA-103 - Ethylene Cracking Furnace

- 82 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
 Which Months: All Year Statistical Basis: None specified
 83 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
 Which Months: All Year Statistical Basis: None specified
 84 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate exemption from the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

EQT385 ETH-BA-104 - Ethylene Cracking Furnace

- 85 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
 Which Months: All Year Statistical Basis: None specified
 86 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
 Which Months: All Year Statistical Basis: None specified
 87 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate exemption from the provisions of LAC 33:III Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

EQT386 ETH-BA-105 - Ethylene Cracking Furnace

- 88 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
 Which Months: All Year Statistical Basis: None specified
 89 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
 Which Months: All Year Statistical Basis: None specified
 90 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate exemption from the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

EQT387 ETH-BA-106 - Ethylene Cracking Furnace

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex
 Activity Number: PER20060002
 Permit Number: 2743-V2
 Air - Title V Regular Permit Renewal

EQT387 ETH-BA-106 - Ethylene Cracking Furnace

91 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
 Which Months: All Year Statistical Basis: None specified

92 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
 Which Months: All Year Statistical Basis: None specified

93 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate exemption from the provisions of LAC 33:III Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

EQT388 ETH-BA-107 - Ethylene Cracking Furnace

94 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
 Which Months: All Year Statistical Basis: None specified

95 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
 Which Months: All Year Statistical Basis: None specified

96 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate exemption from the provisions of LAC 33:III Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

EQT389 ETH-BA-201 - Feed Dryer Regenerator

97 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
 Which Months: All Year Statistical Basis: None specified

98 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
 Which Months: All Year Statistical Basis: None specified

99 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate exemption from the provisions of LAC 33:III Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

EQT390 ETH-BA-401 - Acetylene / Propadiene Converter Regenerator

100 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]
 Which Months: All Year Statistical Basis: None specified

101 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]
 Which Months: All Year Statistical Basis: None specified

102 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate exemption from the provisions of LAC 33:III Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasso North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

EQT391 ETH-CT-201 - North Ethylene Cooling Tower

103 HAP monitored by the regulation's specified method(s) monthly for 6 months, both initially and following completion of a leak repair. Monitor cooling water in each heat exchange system for the HAP listed in 40 CFR 63 Subpart XX Table 1 or other representative substances that indicate the presence of a leak using any method listed in 40 CFR part 136 or the methods specified in 40 CFR 63.1086(d). Then, if no leaks are detected by monitoring monthly for a 6 month period, monitor quarterly thereafter until a leak is detected. If a leak is detected, monitor monthly until the leak has been repaired. Upon completion of repair, monitor according to the specifications in 40 CFR 63.1086(a)(2)(i). Subpart XX. [40 CFR 63.1086(a)]

Which Months: All Year Statistical Basis: None specified

104 Prepare and implement a monitoring plan that documents the procedures that will be used to detect leaks of process fluids into cooling waters. Ensure that the plan requires monitoring of one or more process parameters or other conditions that indicate a leak. Include the information specified in 40 CFR 63.1086(c)(1)(i) through (c)(1)(iv). Subpart XX. [40 CFR 63.1086(c)(1)]

105 Revise the monitoring plan and document the basis for the changes, if a leak is identified by audio, visual, or olfactory inspection, a method listed in 40 CFR part 136, or any other means other than those described in the monitoring plan, and the method(s) specified in the plan could not detect the leak. Complete the revisions to the plan no later than 180 days after discovery of the leak. Subpart XX. [40 CFR 63.1086(c)(2)]

106 Maintain, at all times, the monitoring plan that is currently in use. Maintain the plan on-site, or make accessible from a central location by computer or other means that provide access within 2 hours after a request. If the monitoring plan is changed, retain the most recent superseded plan for at least 5 years from the date of its creation. Retain the superseded plan on-site or accessible from a central location by computer or other means that provide access within 2 hours after a request. Subpart XX. [40 CFR 63.1086(c)(3)]

107 Repair leaks as soon as practical but not later than 45 calendar days after receiving the results of monitoring tests that indicated a leak. Repair leaks unless it can be demonstrated that the results are due to a condition other than a leak. Subpart XX. [40 CFR 63.1087(a)]

108 Once a leak has been repaired, use the monitoring requirements in 40 CFR 63.1086 within 7 calendar days of the repair or startup, whichever is later, to confirm that the heat exchange system has been repaired. Subpart XX. [40 CFR 63.1087(b)]

109 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in 40 CFR 63.1089(a) through (e), according to the requirements of 40 CFR 63.1109(c). Subpart XX. [40 CFR 63.1089]

110 Report any delay of repair in the semiannual report required by 40 CFR 63.1110(e). If the leak remains unrepairs, continue to report the delay of repair in semiannual reports until the leak is repaired. Include the information in 40 CFR 63.1090(a) through (e) in the semiannual report. Subpart XX. [40 CFR 63.1090]

111 Comply with the heat exchange system requirements of 40 CFR 63 Subpart XX. Subpart YY. [40 CFR 63.1103(e)(3)]

EQT392 ETH-EGF - Enclosed Ground Flare

112 Opacity <= 20 percent, except for a combined total of six hours in any 10 consecutive day period, for burning in connection with pressure valve releases for control over process upsets. [LAC 33:III.1105]

Which Months: All Year Statistical Basis: None specified

113 Submit notification: Due to the Office of Environmental Compliance, Emergency and Radiological Services Division, Single Point of Contact (SPOC), as soon as possible after the start of burning of pressure valve releases for control over process upsets. Notify in accordance with LAC 33:I.3923. Notification is required only if the upset cannot be controlled in six hours. [LAC 33:III.1105]

114 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate exemption from the provisions of LAC 33:III Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

115 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Shall comply with all applicable provisions of 40 CFR 63 Subpart A - Determined as MACT. [LAC 33:III.5109.A]

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

EQT392 ETH-EGF - Enclosed Ground Flare

- 116 Design and operate for no visible emissions, as determined by the methods specified in 40 CFR 60.18(f), except for periods not to exceed a total of 5 minutes during any two consecutive hours. Subpart A. [40 CFR 60.18(c)(1)]
- 117 Operate with a flame present at all times, as determined by the methods specified in 40 CFR 60.18(f)(2). Subpart A. [40 CFR 60.18(c)(2)]
- 118 Heat content \geq 300 BTU/scf (11.2 MJ/scm). Determine the net heating value of the gas being combusted by the methods specified in 40 CFR 60.18(f)(3). Subpart A. [40 CFR 60.18(c)(3)(ii)]
- Which Months: All Year Statistical Basis: None specified
- 119 Exit Velocity < 400 ft/sec (122 m/sec), as determined by the method specified in 40 CFR 60.18(f)(4), and less than the velocity Vmax, as determined by the method specified in 40 CFR 60.18(d)(5). Subpart A. [40 CFR 60.18(c)(4)(iii)]
- Which Months: All Year Statistical Basis: None specified
- 120 Monitor flares to ensure that they are operated and maintained in conformance with their designs. Applicable subparts will provide provisions stating how to monitor flares. Subpart A. [40 CFR 60.18(d)]
- 121 Operate at all times when emissions may be vented to the flare. Subpart A. [40 CFR 60.18(e)]
- 122 Presence of a flame monitored by flame monitor continuously. Use a thermocouple or any other equivalent device to detect the presence of a flare pilot flame. Subpart A. [40 CFR 60.18(f)(2)]
- Which Months: All Year Statistical Basis: None specified
- 123 Manage and treat waste streams according to any of the options in 40 CFR 61.342(c)(1) through (e). Subpart XX. [40 CFR 63.1095(b)(2)]
- 124 Comply with the requirements of 40 CFR 61 Subpart FF, except as specified in 40 CFR 63 Subpart XX Table 2. Subpart XX. [40 CFR 63.1095(b)]
- 125 Include a notice with the shipment or transport of each waste stream. State in the notice that the waste stream contains organic HAP that are to be treated in accordance with the provisions of 40 CFR 63 Subpart XX. When the transport is continuous or ongoing (for example, discharge to a publicly-owned treatment works), submit the notice to the treatment operator initially and whenever there is a change in the required treatment. Subpart XX. [40 CFR 63.1096(a)]
- 126 Do not transfer the waste stream unless the transferee has submitted to DEQ a written certification that the transferee will manage and treat any waste stream received from a source subject to the requirements of 40 CFR 63 Subpart XX in accordance with the requirements of 40 CFR 63 Subpart XX. Subpart XX. [40 CFR 63.1096(b)]
- 127 Monitor flares to assure that they are operated and maintained in conformance with their designs. Subpart A. [40 CFR 63.11(b)(1)]
- 128 Operate at all times when emissions may be vented to the flare. Subpart A. [40 CFR 63.11(b)(3)]
- 129 Design and operate for no visible emissions, as determined using Test Method 22 in Appendix A of 40 CFR 60, except for periods not to exceed a total of 5 minutes during any two consecutive hours. Subpart A. [40 CFR 63.11(b)(4)]
- 130 Operate with a flame present at all times. Subpart A. [40 CFR 63.11(b)(5)]
- 131 Presence of a flame monitored by flame monitor continuously. Use a thermocouple or any other equivalent device to detect the presence of a flame. Subpart A. [40 CFR 63.11(b)(5)]
- Which Months: All Year Statistical Basis: None specified
- 132 Heat content \geq 300 BTU/scf (11.2 MJ/scm). Determine the net heating value of the gas being combusted using the equation specified in 40 CFR 63.11(b)(6)(ii). Subpart A. [40 CFR 63.11(b)(6)(ii)]
- Which Months: All Year Statistical Basis: None specified
- 133 Exit Velocity < 400 ft/sec and Vmax, as determined by the method specified in 40 CFR 63.11(b)(7)(i). Determine Vmax using the method specified in 40 CFR 63.11(b)(7)(iii). Subpart A. [40 CFR 63.11(b)(7)(iii)]
- Which Months: All Year Statistical Basis: None specified
- 134 Comply with the provisions of 40 CFR 63.11(b). Subpart G. [40 CFR 63.113(a)(1)(i)]

SPECIFIC REQUIREMENTS

All ID: 3221 - Sasol North America Inc - Lake Charles Chemical Complex
Activity Number: PER20060002
Permit Number: 2743-V2
Air - Title V Regular Permit Renewal

EQT392 ETH-EGF - Enclosed Ground Flare

- 135 Presence of a flame monitored by the regulation's specified method(s) continuously. Subpart G. [40 CFR 63.114(a)(2)]
 Which Months: All Year Statistical Basis: None specified
- 136 Conduct a visible emission test using the techniques specified in 40 CFR 63.11(b)(4). Subpart G. [40 CFR 63.116(a)(1)]
- 137 Determine the net heating value of the gas being combusted using the techniques specified in 40 CFR 63.11(b)(6). Subpart G. [40 CFR 63.116(a)(2)]
- 138 Determine the exit velocity using the techniques specified in either 40 CFR 63.11(b)(7)(i) or 63.11(b)(8), as appropriate. Subpart G. [40 CFR 63.116(a)(3)]
- 139 Conduct a performance test using the procedures in 40 CFR 63.116(c)(1) through (c)(4). Subpart G. [40 CFR 63.116(c)]
- 140 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep up-to-date, readily accessible records of the data specified in 40 CFR 63.117(a)(4) through (a)(8), as applicable. Subpart G. [40 CFR 63.117(a)]
- 141 Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep up-to-date, readily accessible records of the data specified in 40 CFR 63.118(a)(1) through (a)(4). Subpart G. [40 CFR 63.118(a)]
- 142 Inlet emissions: Organic HAP >= 95 % reduction, except as provided in 40 CFR 63.119(e)(2). If a flare is used, it shall meet the specifications described in the general control device requirements of 40 CFR 63.11(b). Subpart G. [40 CFR 63.119(e)(1)]
- Which Months: All Year Statistical Basis: None specified
- 143 Inlet emissions: Organic HAP >= 90 % reduction, if it can be demonstrated that the control device installed on a storage vessel on or before December 31, 1992 is designed to reduce inlet emissions of total organic HAP by greater than or equal to 90 percent but less than 95 percent. Subpart G. [40 CFR 63.119(e)(2)]
- Which Months: All Year Statistical Basis: None specified
- 144 Do not exceed 240 hours per year of periods of planned routine maintenance of the control device, during which the control device does not meet the specifications of 40 CFR 63.119(e)(1) or (e)(2). Subpart G. [40 CFR 63.119(e)(3)]
- 145 Submit, as part of the Notification of Compliance Status required by 40 CFR 63.151(b): A monitoring plan containing the information specified in 40 CFR 63.120(d)(2)(i) and in either (d)(2)(ii) or (d)(2)(iii); and the information specified in 40 CFR 63.120(d)(3)(i) and, if applicable, (d)(3)(ii). Subpart G. [40 CFR 63.120(d)]
- 146 Perform the compliance determination specified in 40 CFR 63.11(b). Subpart G. [40 CFR 63.120(e)(1)]
- 147 Submit the information specified in 40 CFR 63.120(e)(2)(i) through (e)(2)(iii) as part of the Notification of Compliance Status required by 40 CFR 63.152(b). Subpart G. [40 CFR 63.120(e)(2)]
- 148 Continue to meet the general control device requirements specified in 40 CFR 63.11(b). Subpart G. [40 CFR 63.120(e)(4)]
- 149 Vapor collection system: Design and operate to collect the organic hazardous air pollutant vapors displaced from tank trucks or railcars during loading, and route them to a process, or to a fuel gas system, or to a control device as provided in 40 CFR 63.126(b). Subpart G. [40 CFR 63.126(a)(1)]
- 150 Vapor collection system: Design and operate such that organic HAP vapors collected at one loading arm will not pass through another loading arm in the rack to the atmosphere. Subpart G. [40 CFR 63.126(a)(2)]
- 151 Ensure that the process, fuel gas system, or control device used to comply with 40 CFR 63 Subpart G will be operating whenever organic HAP emissions are vented to the process, fuel gas system, or control device. Subpart G. [40 CFR 63.126(a)(3)]
- 152 Comply with the requirements of 40 CFR 63.11(b). Subpart G. [40 CFR 63.126(b)(2)]
- 153 Vent system: Secure each valve in the vent system that would divert the vent stream to the atmosphere in a non-diverting position using a car seal or a lock-and-key type configuration; or equip with a flow indicator. Subpart G. [40 CFR 63.126(i)]
- 154 Presence of a flame monitored by the regulation's specified method(s) continuously. Subpart G. [40 CFR 63.127(a)(2)]
- Which Months: All Year Statistical Basis: None specified
- 155 Vent system: Seal or closure mechanism monitored by visual inspection/determination monthly to ensure that the valve is maintained in the closed position and the vent stream is not diverted through the by-pass line. Subpart G. [40 CFR 63.127(d)(2)(i)]
- Which Months: All Year Statistical Basis: None specified

SPECIFIC REQUIREMENTS**AI ID: 3271 - Sassi North America Inc - Lake Charles Chemical Complex****Activity Number: PER20060002****Permit Number: 2743-V2****Air - Title V Regular Permit Renewal****EQT392 ETH-EGF - Enclosed Ground Flare**

- 156 Vent system: If car-seal has been broken or valve position changed, record that the vent stream has been diverted. Return the car-seal or lock-and-key combination to the secured position as soon as practicable but not later than 15 calendar days after the change is detected. Subpart G. [40 CFR 63.127(d)(2)(ii)]
- 157 Vent system: Secure the by-pass line valve in the closed position with a car-seal or a lock-and-key type configuration. Subpart G. [40 CFR 63.127(d)(2)]
- 158 Determine compliance with 40 CFR 63.126 using the methods and procedures specified in 40 CFR 63.128(a) through (h). Subpart G. [40 CFR 63.128]
- 159 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in 40 CFR 63.129(a) through (f). Subpart G. [40 CFR 63.129]
- 160 Design, operate and inspect in accordance with the requirements of 40 CFR 63.139. Subpart G. [40 CFR 63.133(b)(2)]
- 161 Closed-vent system: Design, operate and inspect in accordance with the requirements of 40 CFR 63.148, except as provided in 40 CFR 63.133(b)(4). Subpart G. [40 CFR 63.133(b)(3)]
- 162 Design, operate and inspect the control device in accordance with the requirements of 40 CFR 63.139. Subpart G. [40 CFR 63.137(b)(2)]
- 163 Closed-vent system: Inspect in accordance with the requirements of 40 CFR 63.148. Subpart G. [40 CFR 63.137(b)(3)]
- 164 Ensure that the control device is operating whenever organic hazardous air pollutants emissions are vented to the control device. Subpart G. [40 CFR 63.139(b)]
- 165 Comply with the requirements of 40 CFR 63.11(b). Subpart G. [40 CFR 63.139(c)(3)]
- 166 Demonstrate that each control device or combination of control devices achieves the appropriate conditions specified in 40 CFR 63.139(c) by using one or more of the methods specified in 40 CFR 63.138(d)(1), (d)(2), or (d)(3), except as specified in (d)(4). Subpart G. [40 CFR 63.139(d)]
- 167 Make a first attempt at repair as soon as practicable but no later than 5 calendar days after identification of gaps, cracks, tears, or holes in ductwork, piping, or connections to covers and control devices during an inspection. Complete repairs no later than 15 calendar days after identification or discovery of the defect. Subpart G. [40 CFR 63.139(f)]
- 168 Comply with the monitoring requirements specified in 40 CFR 63 Subpart G Table 13. Subpart G. [40 CFR 63.143(e)(1)]
- 169 Demonstrate compliance with 40 CFR 63.138 by conducting either a design evaluation or performance test as specified in 40 CFR 63.145(a) through (j). Subpart G. [40 CFR 63.145]
- 170 Vapor collection system or closed vent system (hard-piping): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 once initially according to the procedures in 40 CFR 63.148(c). Subpart G. [40 CFR 63.148(b)(1)(i)]
Which Months: All Year Statistical Basis: None specified
- 171 Vapor collection system or closed vent system (hard-piping): Presence of a leak monitored by visual, audible, and/or olfactory annually. Subpart G. [40 CFR 63.148(b)(1)(ii)]
Which Months: All Year Statistical Basis: None specified
- 172 Vapor collection system or closed vent system (ductwork): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 once initially according to the procedures in 40 CFR 63.148(c). Subpart G. [40 CFR 63.148(b)(2)(i)]
Which Months: All Year Statistical Basis: None specified
- 173 Vapor collection system or closed vent system (ductwork): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 annually according to the procedures in 40 CFR 63.148(c). Subpart G. [40 CFR 63.148(b)(2)(ii)]
Which Months: All Year Statistical Basis: None specified
- 174 Vapor collection system or closed vent system (ductwork): Presence of a leak monitored by visual, audible, and/or olfactory annually. Subpart G. [40 CFR 63.148(b)(2)(iii)]
Which Months: All Year Statistical Basis: None specified
- 175 Fixed roof, cover, or enclosure: Presence of a leak monitored by visual, audible, and/or olfactory once initially and once every six months as specified in 40 CFR 63.133 through 63.137. Subpart G. [40 CFR 63.148(b)(3)]
Which Months: All Year Statistical Basis: None specified

SPECIFIC REQUIREMENTS**AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex****Activity Number: PER20060002****Permit Number: 2743-V2****Air - Title V Regular Permit Renewal****EQT392 ETH-EGF - Enclosed Ground Flare**

- 176 Repair leaks (as indicated by an instrument reading greater than 500 ppm above background or by visual inspections) as soon as practicable, except as provided in 40 CFR 63.148(e). Make a first attempt at repair no later than 5 calendar days after the leak is detected. Complete repairs no later than 15 calendar days after the leak is detected, except as provided in 40 CFR 63.148(d)(3). Subpart G. [40 CFR 63.148(d)]
- 177 Vapor collection system or closed vent system (bypass lines): Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. Subpart G. [40 CFR 63.148(f)(2)]
- 178 Vapor collection system or closed vent system (bypass lines): Seal or closure mechanism monitored by visual inspection/determination monthly to ensure the valve is maintained in the closed position and the vent stream is not diverted through the bypass line. Subpart G. [40 CFR 63.148(f)(2)]
- 179 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in 40 CFR 63.148(i)(1) through (i)(6). Subpart G. [40 CFR 63.148(i)]
- 180 Submit the information specified in 40 CFR 63.148(j)(1) through (j)(3) with the reports required by 40 CFR 63.182(b) of subpart H or 40 CFR 63.152(c). Subpart G. [40 CFR 63.148(j)]
- 181 Closed-vent systems: Ensure that each closed-vent system is designed and operated to collect the regulated material vapors from the emission point, and to route the collected vapors to a control device. Subpart SS. [40 CFR 63.983(a)(1)]
- 182 Closed-vent systems: Operate at all times when emissions are vented to, or collected by, them. Subpart SS. [40 CFR 63.983(a)(2)]
- 183 Closed-vent systems (containing bypass lines): Secure the bypass line valve in the non-diverting position with a car-seal or a lock-and-key type configuration. Subpart SS. [40 CFR 63.983(a)(3)(ii)]
- 184 Closed-vent systems: Ensure that each closed-vent system is designed and operated so that the regulated material vapors collected at one loading arm will not pass through another loading arm in the rack to the atmosphere. Subpart SS. [40 CFR 63.983(a)(4)]
- 185 Closed-vent systems: Ensure that no pressure relief device opens to the atmosphere during loading. Subpart SS. [40 CFR 63.983(a)(5)]
- 186 Closed-vent systems (hard-piping): VOC, Total monitored by 40 CFR 60, Appendix A, Method 2 once initially. If an instrument reading of 500 ppmv above background is measured, a leak is detected. If a leak is detected, initiate repair provisions in 40 CFR 63.983(d)(2). Subpart SS. [40 CFR 63.983(b)(1)(i)(A)]
- 187 Closed-vent systems (hard-piping): Presence of a leak monitored by visual, audible, and/or olfactory annually. Subpart SS. [40 CFR 63.983(b)(1)(i)(B)]
- 188 Closed-vent systems (ductwork): VOC, Total monitored by 40 CFR 60, Appendix A, Method 2 once initially and annually. If an instrument reading of 500 ppmv above background is measured, a leak is detected. If a leak is detected, initiate repair provisions in 40 CFR 63.983(d)(2). Subpart SS. [40 CFR 63.983(b)(1)(ii)]
- 189 Closed-vent systems (unsafe-to-monitor): Determine that the equipment is unsafe-to-inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with 40 CFR 63.983(b)(1). Comply with this requirement instead of the requirements in 40 CFR 63.983(b)(1). Subpart SS. [40 CFR 63.983(b)(2)(i)]
- 190 Closed-vent systems (unsafe-to-monitor): VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 at the regulation's specified frequency. Maintain a written plan that requires inspection of the equipment as frequently as practical during safe-to-inspect times, at least once annually. Comply with this requirement instead of the requirements in 40 CFR 63.983(b)(1). Subpart SS. [40 CFR 63.983(b)(2)(ii)]
- Which Months: All Year Statistical Basis: None specified
- 191 Closed-vent systems (difficult-to-monitor): Determine that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters (7 feet) above a support surface. Comply with this requirement instead of the requirements in 40 CFR 63.983(b)(1). Subpart SS. [40 CFR 63.983(b)(3)(i)]

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex
 Activity Number: PER20060002
 Permit Number: 2743-V2
 Air - Title V Regular Permit Renewal

EQT392 ETH-EGF - Enclosed Ground Flare

- 192 Closed-vent systems (difficult-to-monitor): VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 at the regulation's specified frequency. Maintain a written plan that requires inspection of the equipment at least once every 5 years. Comply with this requirement instead of the requirements in 40 CFR 63.983(b)(1). Subpart SS. [40 CFR 63.983(b)(3)(ii)]
- Which Months: All Year Statistical Basis: None specified
- 193 Closed-vent systems (containing bypass lines): Equipment/operational data monitored by visual inspection/determination monthly. Visually inspect the seal or closure mechanism at least once every month to verify that the valve is maintained in the non-diverting position, and the vent stream is not diverted through the bypass line. Subpart SS. [40 CFR 63.983 (b)(4)(ii)]
- Which Months: All Year Statistical Basis: None specified
- 194 Closed-vent systems (hard piping): Eliminate leak, or monitor according to the procedures in 40 CFR 63.983(c), if there are visible, audible, or olfactory indications of leaks at the time of the annual visual inspections required by 40 CFR 63.983(b)(1)(i)(B). Subpart SS. [40 CFR 63.983(d)(1)]
- 195 Closed-vent systems: Repair leaks as soon as practical, except as provided in 40 CFR 63.983(d)(3). Make a first attempt at repair no later than 5 days after the leak is detected, and complete repairs no later than 15 days after the leak is detected or at the beginning of the next introduction of vapors to the system, whichever is later. Subpart SS. [40 CFR 63.983(d)(2)]
- 196 Closed-vent systems (delay of repair allowed): Repair equipment as soon as practical, but not later than the end of the next closed-vent system shutdown. Subpart SS. [40 CFR 63.983(d)(3)]
- 197 Meet the performance requirements in 40 CFR 63.11(b). Subpart SS. [40 CFR 63.987(a)]
- 198 Conduct an initial flare compliance assessment that meets the requirements specified in 40 CFR 63.987(b)(3)(i) through (b)(3)(iv). Subpart SS. [40 CFR 63.987(b)]
- 199 Presence of a flame monitored by the regulation's specified method(s) continuously. Use a device (including but not limited to a thermocouple, ultra-violet beam sensor, or infrared sensor) capable of continuously detecting that at least one pilot flame or the flare flame is present. Subpart SS. [40 CFR 63.987(c)]
- Which Months: All Year Statistical Basis: None specified
- 200 Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep records of the information specified in 40 CFR 63.998(a) through (d), as applicable. Subpart SS. [40 CFR 63.998]
- 201 Notify DEQ of the intention to conduct a performance test or flare compliance assessment: Due at least 30 days before such a compliance demonstration is scheduled to allow DEQ the opportunity to have an observer present. Notify DEQ as soon as possible of any delay in the original demonstration date, if after 30 days notice for such an initially scheduled compliance demonstration, there is a delay (due to operational problems, etc.) in conducting the scheduled compliance demonstration. Provide at least 7 days prior notice of the rescheduled date of the compliance demonstration, or arrange a rescheduled date with DEQ by mutual agreement. Subpart SS. [40 CFR 63.999(a)(1)(i)]
- 202 Submit performance test and flare compliance assessment reports, if not submitted as part of a Notification of Compliance Status report, to DEQ within 60 days of completing the test or determination, unless specified differently. Include the information specified in 40 CFR 63.999(a)(2)(i) through (a)(2)(iii). Subpart SS. [40 CFR 63.999(a)(1)(ii)]
- 203 Submit application for a waiver of an initial performance test or flare compliance assessment, as allowed by 40 CFR 63.997(b)(2), no later than 90 days before the performance test or compliance assessment is required. Include information justifying the request for a waiver, such as the technical or economic infeasibility, or the impracticality, of the source performing the test. Subpart SS. [40 CFR 63.999(a)(1)(iii)]
- 204 Submit application to substitute a prior performance test or compliance assessment for an initial performance test or compliance assessment, as allowed by 40 CFR 63.997(b)(1), no later than 90 days before the performance test or compliance test is required. Include information demonstrating that the prior performance test or compliance assessment was conducted using the same methods specified in 40 CFR 63.997(e) or 40 CFR 63.987(b)(3), as applicable. Also include information demonstrating that no process changes have been made since the test, or that the results of the performance test or compliance assessment reliably demonstrate compliance despite process changes. Subpart SS. [40 CFR 63.999(a)(1)(iv)]
- 205 Submit Notification of Compliance Status: Due as specified in the referencing subpart. Include the information specified in 40 CFR 63.999(b)(1) through (b)(5), as applicable. Subpart SS. [40 CFR 63.999(b)]

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

EQT392 ETH-EGF - Enclosed Ground Flare

- 206 Submit Periodic Report: Due as specified in the referencing subpart. Include the information specified in 40 CFR 63.999(c)(1) through (c)(7). Subpart SS. [40 CFR 63.999(c)]
- 207 Submit request for approval to use alternatives to continuous operating parameter monitoring and recordkeeping provisions, as provided for in 40 CFR 63.996(d)(1), as specified in a referencing subpart. Include the information specified in 40 CFR 63.999(d)(1)(i) and (d)(1)(ii). Subpart SS. [40 CFR 63.999(d)(1)]
- 208 Submit request for approval to monitor a different parameter than those established in 40 CFR 63.996(c)(6) or to set unique monitoring parameters, as provided for in 40 CFR 63.996(d)(2), as specified as specified in a referencing subpart. Include the information specified in 40 CFR 63.999(d)(2)(i) through (d)(2)(iii). Subpart SS. [40 CFR 63.999(d)(2)]

EQT393 ETH-F-501 - Ethylene Unit Elevated Flare

- 209 Opacity <= 20 percent, except for a combined total of six hours in any 10 consecutive day period, for burning in connection with pressure valve releases for control over process upsets. [LAC 33.III.1105]
- Which Months: All Year Statistical Basis: None specified
- 210 Submit notification: Due to the Office of Environmental Compliance, Emergency and Radiological Services Division, Single Point of Contact (SPOC), as soon as possible after the start of burning of pressure valve releases for control over process upsets. Notify in accordance with LAC 33.I.3923. Notification is required only if the upset cannot be controlled in six hours. [LAC 33.III.1105]
- 211 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate exemption from the provisions of LAC 33.III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33.III.1513]
- 212 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Shall comply with all applicable provisions of 40 CFR 63 Subpart A - Determined as MACT. [LAC 33.III.5109.A]
- 213 Design and operate for no visible emissions, as determined by the methods specified in 40 CFR 60.18(f), except for periods not to exceed a total of 5 minutes during any two consecutive hours. Subpart A. [40 CFR 60.18(c)(1)]
- 214 Operate with a flame present at all times, as determined by the methods specified in 40 CFR 60.18(f)(2). Subpart A. [40 CFR 60.18(c)(2)]
- 215 Heat content >= 300 BTU/scf (11.2 MJ/scm). Determine the net heating value of the gas being combusted by the methods specified in 40 CFR 60.18(f)(3). Subpart A. [40 CFR 60.18(c)(3)(ii)]
- Which Months: All Year Statistical Basis: None specified
- 216 Exit Velocity < 400 ft/sec (122 m/sec), as determined by the method specified in 40 CFR 60.18(f)(4), and less than the velocity Vmax, as determined by the method specified in 40 CFR 60.18(f)(5). Subpart A. [40 CFR 60.18(c)(4)(iii)]
- Which Months: All Year Statistical Basis: None specified
- 217 Monitor flares to ensure that they are operated and maintained in conformance with their designs. Applicable subparts will provide provisions stating how to monitor flares. Subpart A. [40 CFR 60.18(d)]
- 218 Operate at all times when emissions may be vented to the flare. Subpart A. [40 CFR 60.18(e)]
- 219 Presence of a flame monitored by flame monitor continuously. Use a thermocouple or any other equivalent device to detect the presence of a flare pilot flame. Subpart A. [40 CFR 60.18(f)(2)]
- Which Months: All Year Statistical Basis: None specified
- 220 Manage and treat waste streams according to any of the options in 40 CFR 61.342(c)(1) through (e). Subpart XX. [40 CFR 63.1095(b)(2)]
- 221 Comply with the requirements of 40 CFR 61 Subpart FF, except as specified in 40 CFR 63 Subpart XXX Table 2. Subpart XX. [40 CFR 63.1095(b)]

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

EQT393 - Ethylene Unit Elevated Flare

- 222 Include a notice with the shipment or transport of each waste stream. State in the notice that the waste stream contains organic HAP that are to be treated in accordance with the provisions of 40 CFR 63 Subpart XX. When the transport is continuous or ongoing (for example, discharge to a publicly-owned treatment works), submit the notice to the treatment operator initially and whenever there is a change in the required treatment. Subpart XX. [40 CFR 63.1096(a)]
- 223 Do not transfer the waste stream unless the transferee has submitted to DEQ a written certification that the transferee will manage and treat any waste stream received from a source subject to the requirements of 40 CFR 63 Subpart XX in accordance with the requirements of 40 CFR 63 Subpart XX. Subpart XX. [40 CFR 63.1096(b)]
- 224 Monitor flares to assure that they are operated and maintained in conformance with their designs. Subpart A. [40 CFR 63.11(b)(1)]
- 225 Operate at all times when emissions may be vented to the flare. Subpart A. [40 CFR 63.11(b)(3)]
- 226 Design and operate for no visible emissions, as determined using Test Method 22 in Appendix A of 40 CFR 60, except for periods not to exceed a total of 5 minutes during any two consecutive hours. Subpart A. [40 CFR 63.11(b)(4)]
- 227 Operate with a flame present at all times. Subpart A. [40 CFR 63.11(b)(5)]
- 228 Presence of a flame monitored by flame monitor continuously. Use a thermocouple or any other equivalent device to detect the presence of a flame. Subpart A. [40 CFR 63.11(b)(5)]
- Which Months: All Year Statistical Basis: None specified
229 Heat content $\geq 300 \text{ BTU/scf}$ (11.2 MJ/scm). Determine the net heating value of the gas being combusted using the equation specified in 40 CFR 63.11(b)(6)(ii). Subpart A. [40 CFR 63.11(b)(6)(ii)]
- Which Months: All Year Statistical Basis: None specified
230 Exit Velocity $< 400 \text{ f/sec}$ and V_{max} , as determined by the method specified in 40 CFR 63.11(b)(7)(i). Determine V_{max} using the method specified in 40 CFR 63.11(b)(7)(iii)
- Subpart A. [40 CFR 63.11(b)(7)(iii)]
- 231 Design, operate and inspect in accordance with the requirements of 40 CFR 63.139. Subpart G. [40 CFR 63.133(b)(2)]
- 232 Closed-vent system: Design, operate and inspect in accordance with the requirements of 40 CFR 63.148, except as provided in 40 CFR 63.133(b)(4). Subpart G. [40 CFR 63.133(b)(3)]
- 233 Design, operate and inspect the control device in accordance with the requirements of 40 CFR 63.139. Subpart G. [40 CFR 63.137(b)(2)]
- 234 Closed-vent system: Inspect in accordance with the requirements of 40 CFR 63.148. Subpart G. [40 CFR 63.137(b)(3)]
- 235 Ensure that the control device is operating whenever organic hazardous air pollutants emissions are vented to the control device. Subpart G. [40 CFR 63.139(b)]
- 236 Comply with the requirements of 40 CFR 63.11(b). Subpart G. [40 CFR 63.139(c)(3)]
- 237 Demonstrate that each control device or combination of control devices achieves the appropriate conditions specified in 40 CFR 63.139(c) by using one or more of the methods specified in 40 CFR 63.138(d)(1), (d)(2), or (d)(3), except as specified in (d)(4). Subpart G. [40 CFR 63.139(d)]
- 238 Make a first attempt at repair as soon as practicable but no later than 5 calendar days after identification of gaps, cracks, tears, or holes in ductwork, piping, or connections to covers and control devices during an inspection. Complete repairs no later than 15 calendar days after identification or discovery of the defect. Subpart G. [40 CFR 63.139(f)]
- 239 Comply with the monitoring requirements specified in 40 CFR 63 Subpart G Table 13. Subpart G. [40 CFR 63.143(e)(1)]
- 240 Demonstrate compliance with 40 CFR 63.138 by conducting either a design evaluation or performance test as specified in 40 CFR 63.145(a) through (j). Subpart G. [40 CFR 63.145]
- 241 Vapor collection system or closed vent system (hard-piping): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 once initially according to the procedures in 40 CFR 63.148(c). Subpart G. [40 CFR 63.148(b)(1)(i)]
- Which Months: All Year Statistical Basis: None specified

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-Y2

Air - Title V Regular Permit Renewal

ETH-F-501 - Ethylene Unit Elevated Flare

242 Vapor collection system or closed vent system (hard-piping): Presence of a leak monitored by visual, audible, and/or olfactory annually. Subpart G. [40 CFR 63.148(b)(1)(ii)]

Which Months: All Year Statistical Basis: None specified

243 Vapor collection system or closed vent system (ductwork): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 once initially according to the procedures in 40 CFR 63.148(c). Subpart G. [40 CFR 63.148(b)(2)(i)]

Which Months: All Year Statistical Basis: None specified

244 Vapor collection system or closed vent system (ductwork): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 annually according to the procedures in 40 CFR 63.148(c). Subpart G. [40 CFR 63.148(b)(2)(ii)]

Which Months: All Year Statistical Basis: None specified

245 Vapor collection system or closed vent system (ductwork): Presence of a leak monitored by visual, audible, and/or olfactory annually. Subpart G. [40 CFR 63.148(b)(2)(iii)]

Which Months: All Year Statistical Basis: None specified

246 Fixed roof, cover, or enclosure: Presence of a leak monitored by visual, audible, and/or olfactory once initially and once every six months as specified in 40 CFR 63.133 through 63.137. Subpart G. [40 CFR 63.148(b)(3)]

Which Months: All Year Statistical Basis: None specified

247 Repair leaks (as indicated by an instrument reading greater than 500 ppm above background or by visual inspections) as soon as practicable, except as provided in 40 CFR 63.148(e). Make a first attempt at repair no later than 5 calendar days after the leak is detected. Complete repairs no later than 15 calendar days after the leak is detected, except as provided in 40 CFR 63.148(d)(3). Subpart G. [40 CFR 63.148(d)]

248 Vapor collection system or closed vent system (bypass lines): Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. Subpart G. [40 CFR 63.148(f)(2)]

249 Vapor collection system or closed vent system (bypass lines): Seal or closure mechanism monitored by visual inspection/determination monthly to ensure the valve is maintained in the closed position and the vent stream is not diverted through the bypass line. Subpart G. [40 CFR 63.148(f)(2)]

Which Months: All Year Statistical Basis: None specified

250 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in 40 CFR 63.148(i)(1) through (i)(6). Subpart G. [40 CFR 63.148(i)]

251 Submit the information specified in 40 CFR 63.148(j)(1) through (j)(3) with the reports required by 40 CFR 63.182(b) of subpart H or 40 CFR 63.152(c). Subpart G. [40 CFR 63.148(j)]

ETH-FB-207 - Caustic Sewer Sump

252 Shall be equipped with a submerged fill pipe. [LAC 33:III.2103.A]

253 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Shall comply with 40 CFR 61 Subpart FF - Determined as MACT. [LAC 33:III.5109.A]

254 Shall maintain total benzene quantity in all waste streams chosen for exemption from control (40 CFR 61(c)(1)) at or below 2.0 megagram/year. [40 CFR 61.342(c)(3)(ii)(B)]

ETH-T7-907 - Sulfide Caustic Storage Tank FB-253

255 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Shall comply with 40 CFR 63 Subpart WW - Determined as MACT. [LAC 33:III.5109.A]

256 Comply with the requirements of 40 CFR 63 Subpart WW. Subpart YY. [40 CFR 63.1103(e)(3)]

ETH-FB-801 - Methanol/Propanol Storage Tank

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

EQT398**ETH-FB-801 - Methanol/Propanol Storage Tank**

- 257 Equip with a submerged fill pipe. [LAC 33:III.2103.A]
- 258 Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3.a-e. [LAC 33:III.2103.H.3]
- 259 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in LAC 33:III.2103.I.1 - 7, as applicable. [LAC 33:III.2103.I.]

EQT400**ETH-LR-4 - Ethylene Loading Rack**

- 260 Equip with a vapor collection system consisting of, at a minimum, a vapor return line which returns all vapors displaced during loading to the VOC dispensing vessel or to a disposal system. [LAC 33:III.2107.B]
- 261 VOC, Total $\geq 90\%$ DRE, using a vapor disposal system. [LAC 33:III.2107.B]
- Which Months: All Year Statistical Basis: None specified
- 262 Prevent spills during the attachment and disconnection of filling lines or arms. Equip loading and vapor lines with fittings which close automatically when disconnected, or equip to permit residual VOC in the loading line to discharge into a collection system or disposal or recycling system. [LAC 33:III.2107.B]
- 263 VOC, Total monitored by visual, audible, and/or ofactory during loading or unloading, to detect leaks. [LAC 33:III.2107.C]
- Which Months: All Year Statistical Basis: None specified
- 264 Discontinuing loading or unloading through the affected transfer lines when a leak is observed; do not resume loading or unloading until the observed leak is repaired. [LAC 33:III.2107.C]
- 265 Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep records of the information specified in LAC 33:III.2107.D.1 and 2. [LAC 33:III.2107.D]
- 266 Determine compliance with LAC 33:III.2107.B using the methods in LAC 33:III.2107.E.1 through 5, as appropriate. [LAC 33:III.2107.E]
- 267 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Shall comply with 40 CFR 63 Subpart YY - Determined as MACT. [LAC 33:III.5109.A]
- 268 Organic HAP $\geq 98\%$ reduction by weight, or organic HAP or TOC $\leq 20\text{ ppmv}$, whichever is less stringent, by venting emissions through a closed-vent system to any combination of control devices as specified in 40 CFR 63.1105. Subpart YY. [40 CFR 63.1103(e)(3)]
- Which Months: All Year Statistical Basis: None specified
- 269 Install process piping designed to collect the HAP-containing vapors displaced from tank trucks or railcars during loading and to route it to a process, a fuel gas system, or a vapor balance system, as specified in 40 CFR 63.1105. Subpart YY. [40 CFR 63.1103(e)(3)]
- 270 Ensure that no pressure relief device in the transfer rack's system returning vapors to a fuel gas system or process opens to the atmosphere during loading. Subpart SS. [40 CFR 63.984(a)(2)]
- 271 Submit Notification of Compliance Status: Due as specified in the referencing subpart. Include the information specified in 40 CFR 63.999(b)(1) through (b)(5), as applicable. Subpart SS. [40 CFR 63.999(b)]
- 272 Submit Periodic Report: Due as specified in the referencing subpart. Include the information specified in 40 CFR 63.999(c)(1) through (c)(7). Subpart SS. [40 CFR 63.999(c)]

EQT401**ETH-LR-4A - Sulfide Caustic Loading Station**

- 273 Equip with a vapor collection system consisting of, at a minimum, a vapor return line which returns all vapors displaced during loading to the VOC dispensing vessel or to a disposal system. [LAC 33:III.2107.B]
- 274 VOC, Total $\geq 90\%$ DRE, using a vapor disposal system. [LAC 33:III.2107.B]
- Which Months: All Year Statistical Basis: None specified

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

ETH-LR-4A - Sulfide Caustic Loading Station**EQT401**

- 275 Prevent spills during the attachment and disconnection of filling lines or arms. Equip loading and vapor lines with fittings which close automatically when disconnected, or equip to permit residual VOC in the loading line to discharge into a collection system or disposal or recycling system. [LAC 33.III.2107.B]
- 276 VOC, Total monitored by visual, audible, and/or olfactory during loading or unloading, to detect leaks. [LAC 33.III.2107.C]
- Which Months: All Year Statistical Basis: None specified
- 277 Discontinue loading or unloading through the affected transfer lines when a leak is observed; do not resume loading or unloading until the observed leak is repaired. [LAC 33.III.2107.C]
- 278 Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep records of the information specified in LAC 33.III.2107.D.1 and 2. [LAC 33.III.2107.D]
- 279 Determine compliance with LAC 33.III.2107.B using the methods in LAC 33.III.2107.E.1 through 5, as appropriate. [LAC 33.III.2107.E]
- 280 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Shall comply with 40 CFR 63 Subpart YY - Determined as MACT. [LAC 33.III.5109.A]
- 281 Organic HAP $\geq 98\%$ reduction by weight, or organic HAP or TOC ≤ 20 ppmv, whichever is less stringent, by venting emissions through a closed-vent system to any combination of control devices as specified in 40 CFR 63.1105. Subpart YY. [40 CFR 63.1103(e)(3)]
- Which Months: All Year Statistical Basis: None specified
- 282 Install process piping designed to collect the HAP-containing vapors displaced from tank trucks or railcars during loading and to route it to a process, a fuel gas system, or a vapor balance system, as specified in 40 CFR 63.1105. Subpart YY. [40 CFR 63.1103(e)(3)]
- 283 Ensure that no pressure relief device in the transfer rack's system returning vapors to a fuel gas system or process opens to the atmosphere during loading. Subpart SS. [40 CFR 63.984(a)(2)]
- 284 Submit Notification of Compliance Status: Due as specified in the referencing subpart. Include the information specified in 40 CFR 63.999(b)(1) through (b)(5), as applicable. Subpart SS. [40 CFR 63.999(b)]
- 285 Submit Periodic Report: Due as specified in the referencing subpart. Include the information specified in 40 CFR 63.999(c)(1) through (c)(7). Subpart SS. [40 CFR 63.999(c)]

ETH-T7-913 - HAD / Oil Tank**EQT403**

- 286 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Shall comply with 40 CFR 61 Subpart FF - Determined as MACT. [LAC 33.III.5109.A]
- 287 Fixed-roof: Equipment/operational data monitored by visual inspection/determination once initially and once every quarter thereafter to ensure that no cracks or gaps occur and that access doors and other openings are closed and gasketed properly. Subpart FF. [40 CFR 61.343(c)]
- Which Months: All Year Statistical Basis: None specified
- 288 Make first efforts at repair as soon as practicable, but not later than 45 calendar days after a broken seal or gasket or other problem is identified, or when detectable emissions are measured, except as provided in 40 CFR 61.343(d)] Subpart FF. [40 CFR 61.343(d)]
- 289 Install and operate a fixed roof and internal floating roof meeting the requirements in 40 CFR 60.112b(a)(1). Subpart FF. [40 CFR 61.351(a)(1)]
- 290 Determine compliance with 40 CFR 61 Subpart FF using the test methods and procedures specified in 40 CFR 61.355(a) through (i), as applicable. Subpart FF. [40 CFR 61.355]
- 291 Equipment/operational data recordkeeping by electronic or hard copy continuously Maintain records as specified in 40 CFR 61.356(a) through (n). Maintain each record in a readily accessible location at the facility site for a period not less than two years from the date the information is recorded unless otherwise specified. Subpart FF. [40 CFR 61.356]
- 292 Manage and treat waste streams according to any of the options in 40 CFR 61.342(c)(1) through (e). Subpart XX. [40 CFR 63.1095(b)(2)]
- 293 Comply with the requirements of 40 CFR 61 Subpart FF, except as specified in 40 CFR 63 Subpart XX Table 2. Subpart XX. [40 CFR 63.1095(b)]

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

EQT404 ETH-T-914 - North Wastewater Tank

- 294 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Shall comply with 40 CFR 61 Subpart FF - Determined as MACT. [LAC 33.III.5109.A]
- 295 Fixed-roof: Equipment/operational data monitored by visual inspection/determination once initially and once every quarter thereafter to ensure that no cracks or gaps occur and that access doors and other openings are closed and gasketed properly. Subpart FF. [40 CFR 61.343(c)]
Which Months: All Year Statistical Basis: None specified
- 296 Make first efforts at repair as soon as practicable, but not later than 45 calendar days after a broken seal or gasket or other problem is identified, or when detectable emissions are measured, except as provided in 40 CFR 61.350. Subpart FF. [40 CFR 61.343(d)]
- 297 Install and operate a fixed roof and internal floating roof meeting the requirements in 40 CFR 60.112b(a)(1). Subpart FF. [40 CFR 61.351(a)(1)]
- 298 Determine compliance with 40 CFR 61 Subpart FF using the test methods and procedures specified in 40 CFR 61.355(a) through (i), as applicable. Subpart FF. [40 CFR 61.355]
- 299 Equipment/operational data recordkeeping by electronic or hard copy continuously. Maintain records as specified in 40 CFR 61.356(a) through (n). Maintain each record in a readily accessible location at the facility site for a period not less than two years from the date the information is recorded unless otherwise specified. Subpart FF. [40 CFR 61.356]
- 300 Manage and treat waste streams according to any of the options in 40 CFR 61.342(c)(1) through (e). Subpart XX. [40 CFR 63.1095(b)(2)]
- 301 Comply with the requirements of 40 CFR 61 Subpart FF, except as specified in 40 CFR 63 Subpart XX Table 2. Subpart XX. [40 CFR 63.1095(b)]
- 302 Reduce hazardous air pollutants emissions to the atmosphere either by operating and maintaining a fixed roof and internal floating roof, an external floating roof converted to an internal floating roof, a closed-vent system and control device, routing the emissions to a process or a fuel gas system, or vapor balancing in accordance with the requirements in 40 CFR 63.119(b), (c), (d), (e), (f), or (g) or equivalent as provided in 40 CFR 63.121. Subpart G. [40 CFR 63.119(a)(1)]
- 303 Submit an Initial Notification as required by 40 CFR 63.151(b). Subpart G. [40 CFR 63.122(a)(1)]
- 304 Submit a Notification of Compliance Status as required by 40 CFR 63.152(b). Include the information specified in 40 CFR 63.122(c). Subpart G. [40 CFR 63.122(a)(3)]
- 305 Submit Periodic Reports as required by 40 CFR 63.152(d). Include the information specified in 40 CFR 63.122(d), (e), (f), and (g). Subpart G. [40 CFR 63.122(a)(4)]
- 306 Submit, as applicable, other reports as required by 40 CFR 63.152(d). Include the information specified in 40 CFR 63.122(h). Subpart G. [40 CFR 63.122(a)(5)]
- 307 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep readily accessible records of the information specified in 40 CFR 63.123(a) through (i), as applicable. Keep the records as long as the storage vessel retains Group 1 status and is in operation. Subpart G. [40 CFR 63.123]
- 308 Operate and maintain a fixed roof. Subpart G. [40 CFR 63.133(a)(1)]
- 309 Operate and maintain a fixed roof and an internal floating roof that meet the requirements specified in 40 CFR 63.119(b). Subpart G. [40 CFR 63.133(a)(2)(ii)]
- 310 Floating roof. Inspect according to the procedures specified in 40 CFR 63.120(a)(2) and (a)(3). Subpart G. [40 CFR 63.133(c)]
- 311 Equipment/operational data monitored by technically sound method once initially and once every six months. Monitor for improper work practices in accordance with 40 CFR 63.143, except as specified in 40 CFR 63.133(e). Subpart G. [40 CFR 63.133(f)]
Which Months: All Year Statistical Basis: None specified
- 312 Equipment/operational data monitored by technically sound method at the regulation's specified frequency. Inspect each wastewater tank for control equipment failures as defined in 40 CFR 63.133(g)(1) through (g)(1)(ix) according to the schedule in 40 CFR 63.133(g)(2) and (g)(3). Subpart G. [40 CFR 63.133(g)]
Which Months: All Year Statistical Basis: None specified
- 313 When an improper work practice or a control equipment failure is identified, make first efforts at repair no later than 5 calendar days after identification. Complete repair within 45 calendar days after identification. Subpart G. [40 CFR 63.133(h)]
- 314 Comply with the inspection requirements in 40 CFR 63 Subpart G Table 11. Subpart G. [40 CFR 63.143(a)]
- 315 Equipment/operational data recordkeeping by electronic or hard copy continuously. Maintain records specified in 40 CFR 63.147(a) through (l), as applicable. Subpart G. [40 CFR 63.147]

SPECIFIC REQUIREMENTS**AI ID: 3271 - Saso North America Inc - Lake Charles Chemical Complex****Activity Number: PER20060002****Permit Number: 2743-V2****Air - Title V Regular Permit Renewal****ETH-T7-914 - North Wastewater Tank**

- 316 Comply with the provisions of 40 CFR 63 Subpart G Table 35 for each item of equipment meeting all the criteria specified in 40 CFR 63.149(b) through (d) and either (e)(1) or (e)(2). Subpart G. [40 CFR 63.149(a)]

EQT404 ETH-T7-915 - South Wastewater Tank

- 317 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Shall comply with 40 CFR 61 Subpart FF - Determined as MACT. [LAC 33.III.5109.A]
- 318 Fixed-roof: Equipment/operational data monitored by visual inspection/determination once initially and once every quarter thereafter to ensure that no cracks or gaps occur and that access doors and other openings are closed and gasketed properly. Subpart FF. [40 CFR 61.343(c)]
- Which Months: All Year Statistical Basis: None specified
- 319 Make first effor to repair as soon as practicable, but not later than 45 calendar days after a broken seal or gasket or other problem is identified, or when detectable emissions are measured, except as provided in 40 CFR 61.350. Subpart FF. [40 CFR 61.343(d)]
- 320 Install and operate a fixed roof and internal floating roof meeting the requirements in 40 CFR 60.112(b)(1). Subpart FF. [40 CFR 61.351(a)(1)]
- 321 Determine compliance with 40 CFR 61 Subpart FF using the test methods and procedures specified in 40 CFR 61.355(a) through (i), as applicable. Subpart FF. [40 CFR 61.355]
- 322 Equipment/operational data recordkeeping by electronic or hard copy continuously. Maintain records as specified in 40 CFR 61.356(a) through (n). Maintain each record in a readily accessible location at the facility site for a period not less than two years from the date the information is recorded unless otherwise specified. Subpart FF. [40 CFR 61.356]
- 323 Manage and treat waste streams according to any of the options in 40 CFR 61.342(c)(1) through (e). Subpart XX. [40 CFR 63.1095(b)(2)]
- 324 Comply with the requirements of 40 CFR 61 Subpart FF, except as specified in 40 CFR 63 Subpart XX Table 2. Subpart XX. [40 CFR 63.1095(b)]
- 325 Reduce hazardous air pollutants emissions to the atmosphere either by operating and maintaining a fixed roof and internal floating roof, an external floating roof converted to an internal floating roof, a closed-vent system and control device, routing the emissions to a process or a fuel gas system, or vapor balancing in accordance with the requirements in 40 CFR 63.119(b), (c), (d), (e), (f), or (g) or equivalent as provided in 40 CFR 63.121. Subpart G. [40 CFR 63.119(a)(1)]
- 326 Submit an Initial Notification as required by 40 CFR 63.151(b). Subpart G. [40 CFR 63.122(a)(1)]
- 327 Submit a Notification of Compliance Status as required by 40 CFR 63.152(b). Include the information specified in 40 CFR 63.122(c). Subpart G. [40 CFR 63.122(a)(3)]
- 328 Submit Periodic Reports as required by 40 CFR 63.152(d). Include the information specified in 40 CFR 63.122(d), (e), (f), and (g). Subpart G. [40 CFR 63.122(a)(4)]
- 329 Submit, as applicable, other reports as required by 40 CFR 63.152(d). Include the information specified in 40 CFR 63.122(h). Subpart G. [40 CFR 63.122(a)(5)]
- 330 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep readily accessible records of the information specified in 40 CFR 63.123(a) through (i), as applicable. Keep the records as long as the storage vessel retains Group I status and is in operation. Subpart G. [40 CFR 63.123]
- 331 Operate and maintain a fixed roof. Subpart G. [40 CFR 63.133(a)(1)]
- 332 Operate and maintain a fixed roof and an internal floating roof that meet the requirements specified in 40 CFR 63.119(b). Subpart G. [40 CFR 63.133(a)(2)(ii)]
- 333 Floating roof. Inspect according to the procedures specified in 40 CFR 63.120(a)(2) and (a)(3). Subpart G. [40 CFR 63.133(c)]
- 334 Equipment/operational data monitored by technically sound method once initially and once every six months. Monitor for improper work practices in accordance with 40 CFR 63.143, except as specified in 40 CFR 63.133(e). Subpart G. [40 CFR 63.133(f)]
- Which Months: All Year Statistical Basis: None specified
- 335 Equipment/operational data monitored by technically sound method at the regulation's specified frequency. Inspect each wastewater tank for control equipment failures as defined in 40 CFR 63.133(g)(1) through (g)(1)(x) according to the schedule in 40 CFR 63.133(g)(2) and (g)(3). Subpart G. [40 CFR 63.133(g)]
- Which Months: All Year Statistical Basis: None specified

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasio North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

EQT405

- 336 When an improper work practice or a control equipment failure is identified, make first efforts at repair no later than 5 calendar days after identification. Complete repair within 45 calendar days after identification. Subpart G. [40 CFR 63.133(h)]
- 337 Comply with the inspection requirements in 40 CFR 63 Subpart G Table 11. Subpart G. [40 CFR 63.143(a)]
- 338 Equipment/operational data recordkeeping by electronic or hard copy continuously. Maintain records specified in 40 CFR 63.147(a) through (f), as applicable. Subpart G. [40 CFR 63.147]
- 339 Comply with the provisions of 40 CFR 63 Subpart G Table 35 for each item of equipment meeting all the criteria specified in 40 CFR 63.149(b) through (d) and either (e)(1) or (e)(2). Subpart G. [40 CFR 63.149(a)]

EQT406**ETH-T7-915 - South Wastewater Tank**

- 340 Equip with a submerged fill pipe. [LAC 33:III.2103.B]

- 341 Equip internal floating roof with a mechanical shoe seal (metallic-type shoe seal) consisting of a metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof. [LAC 33:III.2103.C.1.b]

- 342 Provide each opening in the internal floating roof (except trim space vents and automatic bleeder vents) with a projection below the liquid surface. In addition, provide each opening (except for leg sleeves, bleeder vents, trim space vents, column wells, ladder wells, sample wells, and stub drains) with a cover equipped with a gasket. Equip automatic bleeder vents and trim space vents with gaskets and equip ladder wells with a sliding cover. [LAC 33:III.2103.C.2]

- 343 Equip with an internal floating roof consisting of a pontoon type roof, double deck roof, or internal floating cover which will rest or float on the surface of the liquid contents and is equipped with a closure seal to close the space between the roof edge and tank wall. All tank gauging and sampling devices will be gas-tight except when gauging or sampling is taking place. [LAC 33:III.2103.C]

- 344 Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3-a-e. [LAC 33:III.2103.H.3]

- 345 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in LAC 33:III.2103.I.1 - 7, as applicable. [LAC 33:III.2103.I]

- 346 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Shall comply with 40 CFR 61 Subpart FF - Determined as MACT. [LAC 33:III.5109.A]

- 347 Fixed-roof: Equipment/operational data monitored by visual inspection/determination once initially and once every quarter thereafter to ensure that no cracks or gaps occur and that access doors and other openings are closed and gasketed properly. Subpart FF. [40 CFR 61.343(c)]
Which Months: All Year Statistical Basis: None specified

- 348 Make first efforts at repair as soon as practicable, but not later than 45 calendar days after a broken seal or gasket or other problem is identified, or when detectable emissions are measured, except as provided in 40 CFR 61.350. Subpart FF. [40 CFR 61.343(d)]

- 349 Install and operate a fixed roof and internal floating roof meeting the requirements in 40 CFR 60.112b(a)(1). Subpart FF. [40 CFR 61.351(a)(1)]

- 350 Determine compliance with 40 CFR 61 Subpart FF using the test methods and procedures specified in 40 CFR 61.355(a) through (i), as applicable. Subpart FF. [40 CFR 61.355]
- 351 Equipment/operational data recordkeeping by electronic or hard copy continuously. Maintain records as specified in 40 CFR 61.356(a) through (n). Maintain each record in a readily accessible location at the facility site for a period not less than two years from the date the information is recorded unless otherwise specified. Subpart FF. [40 CFR 61.356]

- 352 Manage and treat waste streams according to any of the options in 40 CFR 61.342(c)(1) through (e). Subpart XX. [40 CFR 63.1095(b)(2)]

- 353 Comply with the requirements of 40 CFR 61 Subpart FF, except as specified in 40 CFR 63 Subpart XX Table 2. Subpart XX. [40 CFR 63.1095(b)]

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

EQT406 ETH-T7-916 - Wastewater Tank

- 354 Reduce hazardous air pollutants emissions to the atmosphere either by operating and maintaining a fixed roof and internal floating roof, an external floating roof, an external floating roof converted to an internal floating roof, a closed-vent system and control device, routing the emissions to a process or a fuel gas system, or vapor balancing in accordance with the requirements in 40 CFR 63.119(b), (c), (d), (e), (f), or (g) or equivalent as provided in 40 CFR 63.121. Subpart G. [40 CFR 63.119(a)(1)]
- 355 Submit an Initial Notification as required by 40 CFR 63.151(b). Subpart G. [40 CFR 63.122(a)(1)]
- 356 Submit a Notification of Compliance Status as required by 40 CFR 63.152(b). Include the information specified in 40 CFR 63.122(c). Subpart G. [40 CFR 63.122(a)(3)]
- 357 Submit Periodic Reports as required by 40 CFR 63.152(d). Include the information specified in 40 CFR 63.122(d), (e), (f), and (g). Subpart G. [40 CFR 63.122(a)(4)]
- 358 Submit, as applicable, other reports as required by 40 CFR 63.152(d). Include the information specified in 40 CFR 63.122(h). Subpart G. [40 CFR 63.122(a)(5)]
- 359 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep readily accessible records of the information specified in 40 CFR 63.123(a) through (l), as applicable. Keep the records as long as the storage vessel retains Group I status and is in operation. Subpart G. [40 CFR 63.123]
- 360 Operate and maintain a fixed roof. Subpart G. [40 CFR 63.133(a)(1)]
- 361 Operate and maintain a fixed roof and an internal floating roof that meet the requirements specified in 40 CFR 63.119(b). Subpart G. [40 CFR 63.133(a)(2)(ii)]
- 362 Floating roof: Inspect according to the procedures specified in 40 CFR 63.120(a)(2) and (a)(3). Subpart G. [40 CFR 63.133(c)]
- 363 Equipment/operational data monitored by technically sound method once initially and once every six months. Monitor for improper work practices in accordance with 40 CFR 63.143, except as specified in 40 CFR 63.133(e). Subpart G. [40 CFR 63.133(f)]
- Which Months: All Year Statistical Basis: None specified
- 364 Equipment/operational data monitored by technically sound method at the regulation's specified frequency. Inspect each wastewater tank for control equipment failures as defined in 40 CFR 63.133(g)(1)(i) through (g)(1)(ix) according to the schedule in 40 CFR 63.133(g)(2) and (g)(3). Subpart G. [40 CFR 63.133(g)]
- Which Months: All Year Statistical Basis: None specified
- 365 When an improper work practice or a control equipment failure is identified, make first efforts at repair no later than 5 calendar days after identification. Complete repair within 45 calendar days after identification. Subpart G. [40 CFR 63.133(h)]
- 366 Comply with the inspection requirements in 40 CFR 63 Subpart G Table 11. Subpart G. [40 CFR 63.143(a)]
- 367 Equipment/operational data recordkeeping by electronic or hard copy continuously. Maintain records specified in 40 CFR 63.147(a) through (f), as applicable. Subpart G. [40 CFR 63.147]
- 368 Comply with the provisions of 40 CFR 63 Subpart G Table 35 for each item of equipment meeting all the criteria specified in 40 CFR 63.149(b) through (d) and either (e)(1) or (e)(2). Subpart G. [40 CFR 63.149(a)]

EQT407 ETH-T7-929 - Sulfide Caustic Tank

- 369 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Shall comply with 40 CFR 60 Subpart Kb - Determined as MACT. [LAC 33:III.5109.A]
- 370 Equip with a fixed roof in combination with an internal floating roof. The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible. Subpart Kb. [40 CFR 60.112b(a)(1)(i)]
- 371 Equip internal floating roof with a mechanical shoe seal consisting of a metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof. Subpart Kb. [40 CFR 60.112b(a)(1)(ii)(C)]

SPECIFIC REQUIREMENTS

AIID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex
Activity Number: PER20060002
Permit Number: 2743-V2
Air - Title V Regular Permit Renewal

EQT407 ETH-T7-929 - Sulfide Caustic Tank

372 Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface. Equip each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains with a cover or lid and maintain in a closed position at all times (i.e., no visible gap) except when the device is in actual use. Equip the cover or lid with a gasket. Bolt covers on each access hatch and automatic gauge float well except when they are in use. Equip automatic bleeder vents with a gasket and close at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. Equip rim space vents with a gasket and set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting. Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening. Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover. Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover. Subpart Kb. [40 CFR 60.112b(a)(1)]

373 Tank roof and seals monitored by visual inspection/determination at the regulation's specified frequency. Inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with VOL. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, repair the items before filling the storage vessel. Subpart Kb. [40 CFR 60.113b(a)(1)]

Which Months: All Year Statistical Basis: None specified

374 Tank roof and seals monitored by visual inspection/determination at the regulation's specified frequency. Inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If a failure is detected during inspections required in this paragraph initiate repair provisions. Subpart Kb. [40 CFR 60.113b(a)(4)]

Which Months: All Year Statistical Basis: None specified

375 Tank roof and seals monitored by visual inspection/determination at the regulation's specified frequency. Inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. Subpart Kb. [40 CFR 60.113b(a)(2)].

Which Months: All Year Statistical Basis: None specified

376 If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in 40 CFR 60.113b(a)(2) and (a)(3)(ii) and at intervals no greater than 5 years in the case of vessels specified in paragraph 40 CFR 60.113b(a)(3)(i) of this section. Subpart Kb. [40 CFR 60.113b(a)(4)]

377 Submit notification in writing: Due at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by 40 CFR 60.113b(a)(1) and (a)(4) to afford DEQ an opportunity to have an observer present. If the inspection required by paragraph 40 CFR 60.113b(a)(4) is not planned and the owner or operator could not have known about the inspection 30 days in advance or refilling the tank, notify DEQ at least 7 days prior to the refilling of the storage vessel. Notify by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, submit notification in writing including the written documentation and send by express mail so that it is received by DEQ at least 7 days prior to the refilling. Subpart Kb. [40 CFR 60.113b(a)(5)]

378 Submit a report: Due to DEQ as an attachment to the notification required by 40 CFR 60.7(a)(3). This report shall describe the control equipment and certify that the control equipment meets the specifications of 40 CFR 60.112b(a)(1) and 60.113b(a)(1). Keep copies of all reports for at least two years. Subpart Kb. [40 CFR 60.115b(a)(1)]

379 Inspection records recordkeeping by electronic or hard copy upon each occurrence of inspection, per 40 CFR 60.113b(a)(1) through (4). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings). Keep copies of all records for at least two years. Subpart Kb. [40 CFR 60.115b(a)(2)]

380 Submit a report: Due to DEQ within 30 days of the annual visual inspection required by 40 CFR 60.113b(a)(2) that detects any of the conditions described in 40 CFR 60.113b(a)(2). Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made. Keep copies of all reports for at least two years. Subpart Kb. [40 CFR 60.115b(a)(3)]

SPECIFIC REQUIREMENTS**AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex****Activity Number: PER20060002****Permit Number: 2743-V2****Air - Title V Regular Permit Renewal****ETH-T7-929 - Sulfide Caustic Tank****EQT407**

- 381 Submit a report: Due to DEQ within 30 days of each inspection required by 40 CFR 60.113(b)(a)(3) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in 40 CFR 60.113(b)(a)(3)(ii). The report shall identify the storage vessel and the reason it did not meet the specifications of 40 CFR 61.112(b)(a)(1) or 40 CFR 60.113(b)(a)(3) and list each repair made. Keep copies of all reports for at least two years. Subpart Kb. [40 CFR 60.115(b)(a)(4)]
- 382 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. Keep copies of all records for the life of the source as specified by 40 CFR 60.116(b)(a). Subpart Kb. [40 CFR 60.116(b)(b)]
- 383 VOL storage data recordkeeping by electronic or hard copy continuously. Records consist of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period. Keep copies of all records for at least two years. Subpart Kb. [40 CFR 60.116(b)(c)]
- 384 Comply with the requirements of 40 CFR 63 Subpart WW. Subpart YY. [40 CFR 63.1103(e)(3)]

ETH-WW - Ethylene Unit Wastewater Sources**EQT408**

- 385 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Shall comply with 40 CFR 61 Subpart FF - Determined as MACT. [AAC 33.III.5109.A]
- 386 Cover: Ensure that the cover and all openings are designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, initially and thereafter at least once per year by the methods specified in 40 CFR 61.355(h). Subpart FF. [40 CFR 61.346(a)(1)(i)(A)]
- 387 Maintain each opening in a closed, sealed position at all times that waste is in the drain system except when it is necessary to use the opening for waste sampling or removal, or for equipment inspection, maintenance, or repair, except as specified in 40 CFR 61.346(a)(1)(i)(C). Subpart FF. [40 CFR 61.346(a)(1)(i)(B)]
- 388 Install, operate, and maintain a cover and closed-vent system that routes all organic vapors vented from the drain system to a control device. Subpart FF. [40 CFR 61.346(a)(1)]
- 389 Cover: Equipment/operational data monitored by visual inspection/determination once initially and once every quarter thereafter to ensure that no cracks or gaps occur and that access hatches and other openings are closed and gasketed properly. Subpart FF. [40 CFR 61.346(a)(2)]
- Which Months: All Year Statistical Basis: None specified
- 390 Make first efforts at repair as soon as practicable, but not later than 15 calendar days after a broken seal or gasket or other problem is identified, or when detectable emissions are measured, except as provided in 40 CFR 61.350. Subpart FF. [40 CFR 61.346(a)(3)]
- 391 Determine compliance with 40 CFR 61. Subpart FF using the test methods and procedures specified in 40 CFR 61.355(a) through (i), as applicable. Subpart FF. [40 CFR 61.355]
- 392 Equipment/operational data recordkeeping by electronic or hard copy continuously. Maintain records as specified in 40 CFR 61.356(a) through (n). Maintain each record in a readily accessible location at the facility site for a period not less than two years from the date the information is recorded unless otherwise specified. Subpart FF. [40 CFR 61.356]
- 393 Manage and treat waste streams according to any of the options in 40 CFR 61.342(c)(1) through (e). Subpart XX. [40 CFR 63.1095(b)(2)]
- 394 Comply with the requirements of 40 CFR 61 Subpart FF, except as specified in 40 CFR 63 Subpart XX Table 2. Subpart XX. [40 CFR 63.1095(b)]
- 395 Include a notice with the shipment or transport of each waste stream. State in the notice that the waste stream contains organic HAP that are to be treated in accordance with the provisions of 40 CFR 63 Subpart XX. When the transport is continuous or ongoing (for example, discharge to a publicly-owned treatment works), submit the notice to the treatment operator initially and whenever there is a change in the required treatment. Subpart XX. [40 CFR 63.1096(a)]
- 396 Do not transfer the waste stream unless the transferee has submitted to DEQ a written certification that the transferee will manage and treat any waste stream received from a source subject to the requirements of 40 CFR 63 Subpart XX in accordance with the requirements of 40 CFR 63.132(a)(1)(i) or (a)(1)(ii), and (a)(1)(iii).
- 397 Determine whether each wastewater stream requires control for Table 9 compounds by complying with the requirements in 40 CFR 63.132(a)(1) or (a)(1)(ii), and (a)(1)(iii).
- 398 Determine total annual average concentration of Table 9 compounds according to the procedures in 40 CFR 63.144(b), and determine annual average flow rate according to the procedures in 40 CFR 63.144(c), to determine whether a wastewater stream is Group 1 or Group 2 for Table 9 compounds. Subpart G. [40 CFR 63.132(c)]

SPECIFIC REQUIREMENTS**AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex****Activity Number: PER20060002****Permit Number: 2743-V2****Air - Title V Regular Permit Renewal****EQT408 ETH-WW - Ethylene Unit Wastewater Sources**

399 Determine annual average concentration for each Table 8 compound according to the procedures specified in 40 CFR 63.144(b), and determine annual average flow rate according to the procedures specified in 40 CFR 63.144(c), to determine whether a wastewater stream is Group 1 or Group 2 for Table 8 compounds. Subpart G. [40 CFR 63.132(d)]

400 Do not discard liquid or solid organic materials with a concentration of greater than 10,000 ppm of Table 9 compounds (as determined by analysis of the stream composition, engineering calculations, or process knowledge, according to the provisions of 40 CFR 63.144(b)) from a chemical manufacturing process unit to water or wastewater, unless the receiving stream is managed and treated as a Group 1 wastewater stream. Subpart G. [40 CFR 63.132(f)]

401 Operate and maintain a steam stripper that meets the requirements of 40 CFR 63.138(d)(1) through (d)(6). Subpart G. [40 CFR 63.138(d)]

402 Demonstrate compliance with 40 CFR 63.138(b)(1), (c)(1), (e), (f), and/or (g) using the procedures in either 40 CFR 63.138(j)(1) or (j)(2), except as specified in 40 CFR 63.138(j)(3) or (h). Subpart G. [40 CFR 63.138(j)]

403 Residuals: Return the wastewater stream residual to the treatment process. Subpart G. [40 CFR 63.138(k)(2)]

404 Comply with the inspection requirements in 40 CFR 63 Subpart G Table 1. Subpart G. [40 CFR 63.143(a)]

405 Equipment/operational data recordkeeping by electronic or hard copy continuously. Maintain records specified in 40 CFR 63.147(a) through (f), as applicable. Subpart G. [40 CFR 63.147] 406 Comply with the provisions of 40 CFR 63 Subpart G Table 35 for each item of equipment meeting all the criteria specified in 40 CFR 63.149(b) through (d) and either (e)(1) or (e)(2). Subpart G. [40 CFR 63.149(a)]

EQT414 ETH-D7-113 - MEROX Storage Tank

407 Equip with a vapor loss control system, consisting of a gathering system capable of collecting volatile organic compound vapors and a vapor disposal system capable of processing such organic vapors. All tank gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place. [LAC 33:III.2103.A]

408 VOC, Total $\geq 95\%$ control efficiency using a vapor loss control system. This limitation does not apply during periods of planned routine maintenance which may not exceed 240 hours per year. [LAC 33:III.2103.E.1]

Which Months: All Year Statistical Basis: None specified

409 Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3.a-e. [LAC 33:III.2103.H.3]

410 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in LAC 33:III.2103.I.1 - 7, as applicable. [LAC 33:III.2103.I.]

EQT424 ETH-D7-1005 - Flare Stack Condensate Knock Out Pot HA-900

411 Equip with a vapor loss control system, consisting of a gathering system capable of collecting volatile organic compound vapors and a vapor disposal system capable of processing such organic vapors. All tank gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place. [LAC 33:III.2103.A]

412 VOC, Total $\geq 95\%$ control efficiency using a vapor loss control system. This limitation does not apply during periods of planned routine maintenance which may not exceed 240 hours per year. [LAC 33:III.2103.E.1]

Which Months: All Year Statistical Basis: None specified

413 Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3.a-e. [LAC 33:III.2103.H.3]

414 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in LAC 33:III.2103.I.1 - 7, as applicable. [LAC 33:III.2103.I.]

415 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Shall be equipped with a closed vent and a flare system - Determined as MACT. [LAC 33:III.5109.A]

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

EQT424 ETH-D7-1005 - Flare Stack Condensate Knock Out Pot HA-900

- 416 Fixed roof: Ensure that the cover and all openings are designed to operate with no detectable emissions as indicated by an instrument reading less than 500 ppmv above background, as determined initially and thereafter at least once per year by the methods specified in 40 CFR 61.355(h). Subpart FF. [40 CFR 61.343(a)(1)(i)(A)]
- 417 Fixed roof: Maintain each opening in a closed, sealed position at all times that waste is in the tank except when it is necessary to use the opening for waste sampling or removal, or for equipment inspection, maintenance, or repair, except as specified in 40 CFR 61.343(a)(1)(i)(C). Subpart FF. [40 CFR 61.343(a)(1)(i)(B)]
- 418 Install, operate, and maintain a fixed-roof and closed-vent system that routes all organic vapors vented from the tank to a control device. Subpart FF. [40 CFR 61.343(a)(1)]
- 419 Install, operate, and maintain an enclosure and closed-vent system that routes all organic vapors vented from the tank, located inside the enclosure, to a control device in accordance with the requirements specified in 40 CFR 61.343(e). Subpart FF. [40 CFR 61.343(a)(2)]
- 420 Fixed-roof: Equipment/operational data monitored by visual inspection/determination once initially and once every quarter thereafter to ensure that no cracks or gaps occur and that access doors and other openings are closed and gasketed properly. Subpart FF. [40 CFR 61.343(c)]
- Which Months: All Year Statistical Basis: None specified
- 421 Make first efforts at repair as soon as practicable, but not later than 45 calendar days after a broken seal or gasket or other problem is identified, or when detectable emissions are measured, except as provided in 40 CFR 61.350. Subpart FF. [40 CFR 61.343(d)]
- 422 Meet the requirements specified in 40 CFR 63.343(e)(1) through (e)(4). Subpart FF. [40 CFR 61.343(e)]
- 423 Determine compliance with 40 CFR 61 Subpart FF using the test methods and procedures specified in 40 CFR 61.355(a) through (i), as applicable. Subpart FF. [40 CFR 61.355]
- 424 Equipment/operational data recordkeeping by electronic or hard copy continuously Maintain records as specified in 40 CFR 61.356(a) through (n). Maintain each record in a readily accessible location at the facility site for a period not less than two years from the date the information is recorded unless otherwise specified. Subpart FF. [40 CFR 61.356]
- 425 Manage and treat waste streams according to any of the options in 40 CFR 61.342(c)(1) through (e). Subpart XX. [40 CFR 63.1095(b)(2)]
- 426 Comply with the requirements of 40 CFR 61 Subpart FF, except as specified in 40 CFR 63 Subpart XX Table 2. Subpart XX. [40 CFR 63.1095(b)]

EQT425 ETH-D7-901 - Mixed C4 (Butadiene) Storage Bullet

- 427 Equip with a submerged fill pipe. [LAC 33:III.2103.A]
- 428 Equip with a vapor loss control system, consisting of a gathering system capable of collecting volatile organic compound vapors and a vapor disposal system capable of processing such organic vapors. All tank gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place. [LAC 33:III.2103.A]
- 429 VOC, Total >= 95 % control efficiency using a vapor loss control system. This limitation does not apply during periods of planned routine maintenance which may not exceed 240 hours per year. [LAC 33:III.2103.E.]
- Which Months: All Year Statistical Basis: None specified
- 430 Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3-a-e. [LAC 33:III.2103.H.3]
- 431 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in LAC 33:III.2103.I.1 - 7, as applicable. [LAC 33:III.2103.I]
- 432 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Shall be equipped with a submerged fill pipe, a closed vent and a flare system - Determined as MACT. [LAC 33:III.5109.A]

EQT426 ETH-D7-902 - Mixed C4 (Butadiene) Storage Bullet

- 433 Equip with a submerged fill pipe. [LAC 33:III.2103.A]
- 434 Equip with a vapor loss control system, consisting of a gathering system capable of collecting volatile organic compound vapors and a vapor disposal system capable of processing such organic vapors. All tank gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place. [LAC 33:III.2103.A]

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

EQT426 ETH-D7-902 - Mixed C4 (Butadiene) Storage Bullet

- 435 VOC, Total $\geq 95\%$ control efficiency using a vapor loss control system. This limitation does not apply during periods of planned routine maintenance which may not exceed 240 hours per year. [LAC 33:II.2|03.E.1]
Which Months: All Year Statistical Basis: None specified
- 436 Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2|03.H.3-a-e. [LAC 33:III.2|03.H.3]
- 437 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in LAC 33:III.2|03.1.1 - 7, as applicable. [LAC 33:II.2|03.I.]
- 438 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Shall be equipped with a submerged fill pipe, a closed vent, and a flare system - Determined as MACT. [LAC 33:III.5|09.A]

EQT427 ETH-D7-903 - Propylene Storage Bullet

- 439 Equip with a submerged fill pipe. [LAC 33:III.2|03.A]
- 440 Equip with a vapor loss control system, consisting of a gathering system capable of collecting volatile organic compound vapors and a vapor disposal system capable of processing such organic vapors. All tank gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place. [LAC 33:III.2|03.A]
- 441 VOC, Total $\geq 95\%$ control efficiency using a vapor loss control system. This limitation does not apply during periods of planned routine maintenance which may not exceed 240 hours per year. [LAC 33:III.2|03.E.1]
Which Months: All Year Statistical Basis: None specified
- 442 Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2|03.H.3-a-e. [LAC 33:III.2|03.H.3]
- 443 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in LAC 33:III.2|03.1.1 - 7, as applicable. [LAC 33:II.2|03.I.]

EQT428 ETH-D7-922 - Propane/Propylene Storage Bullet

- 444 Equip with a submerged fill pipe. [LAC 33:III.2|03.A]
- 445 Equip with a vapor loss control system, consisting of a gathering system capable of collecting volatile organic compound vapors and a vapor disposal system capable of processing such organic vapors. All tank gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place. [LAC 33:III.2|03.A]
- 446 VOC, Total $\geq 95\%$ control efficiency using a vapor loss control system. This limitation does not apply during periods of planned routine maintenance which may not exceed 240 hours per year. [LAC 33:III.2|03.E.1]
Which Months: All Year Statistical Basis: None specified
- 447 Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2|03.H.3-a-e. [LAC 33:III.2|03.H.3]
- 448 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in LAC 33:III.2|03.1.1 - 7, as applicable. [LAC 33:II.2|03.I.]
- 449 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Shall be equipped with a submerged fill pipe, a closed vent, and a flare system - Determined as MACT. [LAC 33:III.5|09.A]

EQT429 ETH-D7-927 - Propane/Propylene Storage Bullet

- 450 Equip with a submerged fill pipe. [LAC 33:III.2|03.A]
- 451 Equip with a vapor loss control system, consisting of a gathering system capable of collecting volatile organic compound vapors and a vapor disposal system capable of processing such organic vapors. All tank gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place. [LAC 33:III.2|03.A]

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

EQT429 ETH-D7-927 - Propane/Propylene Storage Bullet

452 VOC, Total \geq 95 % control efficiency using a vapor loss control system. This limitation does not apply during periods of planned routine maintenance which may not exceed 240 hours per year. [LAC 33.III.2103.E.1]

Which Months: All Year Statistical Basis: None specified

453 Determine VOC maximum true vapor pressure using the methods in LAC 33.III.2103.H.3.a-e. [LAC 33.III.2103.H.3]

454 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in LAC 33.III.2103.I.1 - 7, as applicable. [LAC 33.III.2103.]

455 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Shall be equipped with a submerged fill pipe, a closed vent, and a flare system - Determined as MACT. [LAC 33.III.5109.A]

EQT430 ETH-D7-946 - Heavy Aromatic Distillate Storage Bullet

456 Equip with a vapor loss control system, consisting of a gathering system capable of collecting volatile organic compound vapors and a vapor disposal system capable of processing such organic vapors. All tank gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place. [LAC 33.III.2103.A]

457 VOC, Total \geq 95 % control efficiency using a vapor loss control system. This limitation does not apply during periods of planned routine maintenance which may not exceed 240 hours per year. [LAC 33.III.2103.E.1]

Which Months: All Year Statistical Basis: None specified

458 Determine VOC maximum true vapor pressure using the methods in LAC 33.III.2103.H.3.a-e. [LAC 33.III.2103.H.3]

459 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in LAC 33.III.2103.I.1 - 7, as applicable. [LAC 33.III.2103.]

460 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Shall be equipped with a closed vent and a flare system - Determined as MACT. [LAC 33.III.5109.A]

461 Fixed roof: Ensure that the cover and all openings are designed to operate with no detectable emissions as indicated by an instrument reading less than 500 pptv above background, as determined initially and thereafter at least once per year by the methods specified in 40 CFR 61.355(h). Subpart FF. [40 CFR 61.343(a)(1)(i)(A)]

462 Fixed roof: Maintain each opening in a closed, sealed position at all times that waste is in the tank except when it is necessary to use the opening for waste sampling or removal, or for equipment inspection, maintenance, or repair, except as specified in 40 CFR 61.343(a)(1)(i)(C). Subpart FF. [40 CFR 61.343(a)(1)(i)(B)]

463 Install, operate, and maintain a fixed-roof and closed-vent system that routes all organic vapors vented from the tank to a control device. Subpart FF. [40 CFR 61.343(a)(1)(i)(D)]

464 Install, operate, and maintain an enclosure and closed-vent system that routes all organic vapors vented from the tank, located inside the enclosure, to a control device in accordance with the requirements specified in 40 CFR 61.343(e). Subpart FF. [40 CFR 61.343(a)(2)]

465 Fixed-roof: Equipment/operational data monitored by visual inspection/determination once initially and once every quarter thereafter to ensure that no cracks or gaps occur and that access doors and other openings are closed and gasketed properly. Subpart FF. [40 CFR 61.343(c)]

466 Make first efforts at repair as soon as practicable, but not later than 45 calendar days after a broken seal or gasket or other problem is identified, or when detectable emissions are measured, except as provided in 40 CFR 61.350. Subpart FF. [40 CFR 61.343(d)]

467 Meet the requirements specified in 40 CFR 63.343(e)(1) through (e)(4). Subpart FF. [40 CFR 61.343(e)]

468 Determine compliance with 40 CFR 61 Subpart FF using the test methods and procedures specified in 40 CFR 61.355(a) through (i), as applicable. Subpart FF. [40 CFR 61.355]

469 Equipment/operational data recordkeeping by electronic or hard copy continuously Maintain records as specified in 40 CFR 61.356(a) through (n). Maintain each record in a readily accessible location at the facility site for a period not less than two years from the date the information is recorded unless otherwise specified. Subpart FF. [40 CFR 61.356]

SPECIFIC REQUIREMENTS**AI ID: 3271 - Sassel North America Inc - Lake Charles Chemical Complex****Activity Number: PER20060002****Permit Number: 2743-V2****Air - Title V Regular Permit Renewal****ETH-D7-946 - Heavy Aromatic Distillate Storage Bullet****EQT430**

- 470 Manage and treat waste streams according to any of the options in 40 CFR 61.342(c)(1) through (e). Subpart XX. [40 CFR 63.1095(b)(2)]
- 471 Comply with the requirements of 40 CFR 61 Subpart FF, except as specified in 40 CFR 63 Subpart XX Table 2. Subpart XX. [40 CFR 63.1095(b)]
- 472 Shall comply with 40 CFR 63 Subpart XX by complying with 40 CFR 61 Subpart FF including 40 CFR 61.342(c)(1) through (e) - 40 CFR 63 Subpart YY. [40 CFR 63.1103(e)(3)Table 7(g)]

EQT431**ETH-D7-947 - Sulfide Caustic / Oil Separation Drum**

- 473 Equip with a vapor loss control system, consisting of a gathering system capable of collecting volatile organic compound vapors and a vapor disposal system capable of processing such organic vapors. All tank gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place. [LAC 33:III.2103.A]
- 474 VOC, Total \geq 95 % control efficiency using a vapor loss control system. This limitation does not apply during periods of planned routine maintenance which may not exceed 240 hours per year. [LAC 33:III.2103.E.]

Which Months: All Year Statistical Basis: None specified

- 475 Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3-a-e. [LAC 33:III.2103.H.3]

- 476 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in LAC 33:III.2103.I.1 - 7, as applicable. [LAC 33:III.2103.I.]

- 477 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Shall be equipped with a closed vent and a flare system - Determined as MACT. [LAC 33:III.5109.A]

- 478 Fixed roof: Ensure that the cover and all openings are designed to operate with no detectable emissions as indicated by an instrument reading less than 500 ppmv above background, as determined initially and thereafter at least once per year by the methods specified in 40 CFR 61.355(h). Subpart FF. [40 CFR 61.343(a)(1)(i)(A)]

- 479 Fixed roof: Maintain each opening in a closed, sealed position at all times that waste is in the tank except when it is necessary to use the opening for waste sampling or removal, or for equipment inspection, maintenance, or repair, except as specified in 40 CFR 61.343(a)(1)(i)(C). Subpart FF. [40 CFR 61.343(a)(1)(i)(B)]

- 480 Install, operate, and maintain a fixed-roof and closed-vent system that routes all organic vapors vented from the tank to a control device. Subpart FF. [40 CFR 61.343(a)(1)(i)]

- 481 Install, operate, and maintain an enclosure and closed-vent system that routes all organic vapors vented from the tank, located inside the enclosure, to a control device in accordance with the requirements specified in 40 CFR 61.343(e). Subpart FF. [40 CFR 61.343(a)(2)]

- 482 Fixed-roof: Equipment/operational data monitored by visual inspection/determination once initially and once every quarter thereafter to ensure that no cracks or gaps occur and that access doors and other openings are closed and gasketed properly. Subpart FF. [40 CFR 61.343(c)]

Which Months: All Year Statistical Basis: None specified

- 483 Make first efforts at repair as soon as practicable, but not later than 45 calendar days after a broken seal or basket or other problem is identified, or when detectable emissions are measured, except as provided in 40 CFR 61.350. Subpart FF. [40 CFR 61.343(d)]

- 484 Meet the requirements specified in 40 CFR 63.343(e)(1) through (e)(4). Subpart FF. [40 CFR 61.343(e)]

- 485 Determine compliance with 40 CFR 61 Subpart FF using the test methods and procedures specified in 40 CFR 61.356(a) through (n). Maintain each record in a readily accessible location at the facility site for a period not less than two years from the date the information is recorded unless otherwise specified. Subpart FF. [40 CFR 61.356]

- 487 Manage and treat waste streams according to any of the options in 40 CFR 61.342(c)(1) through (e). Subpart XX. [40 CFR 63.1095(b)(2)]

- 488 Comply with the requirements of 40 CFR 61 Subpart FF, except as specified in 40 CFR 63 Subpart XX Table 2. Subpart XX. [40 CFR 63.1095(b)]

- 489 Shall comply with 40 CFR 63 Subpart XX by complying with 40 CFR 61 Subpart FF including 40 CFR 61.342(c)(1) through (e) - 40 CFR 63 Subpart YY. [40 CFR 63.1103(e)(3)Table 7(g)]

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasso North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

ETH-D7-952 - Degassing Pot**EQT432**

- 490 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Shall be equipped with a closed vent and a flare system - Determined as MACT. [LAC 33:III.5|09.A]
- 491 Fixed roof: Ensure that the cover and all openings are designed to operate with no detectable emissions as indicated by an instrument reading less than 500 ppmv above background, as determined initially and thereafter at least once per year by the methods specified in 40 CFR 61.355(h). Subpart FF. [40 CFR 61.343(a)(1)(i)(A)]
- 492 Fixed roof: Maintain each opening in a closed, sealed position at all times that waste is in the tank except when it is necessary to use the opening for waste sampling or removal, or for equipment inspection, maintenance, or repair, except as specified in 40 CFR 61.343(a)(1)(i)(C). Subpart FF. [40 CFR 61.343(a)(1)(i)(B)]
- 493 Install, operate, and maintain a fixed-roof and closed-vent system that routes all organic vapors vented from the tank to a control device. Subpart FF. [40 CFR 61.343(a)(1)]
- 494 Install, operate, and maintain an enclosure and closed-vent system that routes all organic vapors vented from the tank, located inside the enclosure, to a control device in accordance with the requirements specified in 40 CFR 61.343(e). Subpart FF. [40 CFR 61.343(a)(2)]
- 495 Fixed-roof: Equipment/operational data monitored by visual inspection/determination once initially and once every quarter thereafter to ensure that no cracks or gaps occur and that access doors and other openings are closed and gasketed properly. Subpart FF. [40 CFR 61.343(c)]
- Which Months: All Year Statistical Basis: None specified
- 496 Make first efforts at repair as soon as practicable, but not later than 45 calendar days after a broken seal or gasket or other problem is identified, or when detectable emissions are measured, except as provided in 40 CFR 61.350. Subpart FF. [40 CFR 61.343(d)]
- 497 Meet the requirements specified in 40 CFR 63.343(e)(1) through (e)(4). Subpart FF. [40 CFR 61.343(e)]
- 498 Determine compliance with 40 CFR 61 Subpart FF using the test methods and procedures specified in 40 CFR 61.355(a) through (i), as applicable. Subpart FF. [40 CFR 61.355]
- 499 Equipment/operational data recordkeeping by electronic or hard copy continuously. Maintain records as specified in 40 CFR 61.356(a) through (n). Maintain each record in a readily accessible location at the facility site for a period not less than two years from the date the information is recorded unless otherwise specified. Subpart FF. [40 CFR 61.356]
- 500 Manage and treat waste streams according to any of the options in 40 CFR 61.342(c)(1) through (e). Subpart XX. [40 CFR 63.1095(b)(2)]
- 501 Comply with the requirements of 40 CFR 61 Subpart FF, except as specified in 40 CFR 63 Subpart XX Table 2. Subpart XX. [40 CFR 63.1095(b)]
- 502 Reduce hazardous air pollutants emissions to the atmosphere either by operating and maintaining a fixed roof and internal floating roof, an external floating roof converted to an internal floating roof, a closed-vent system and control device, routing the emissions to a process or a fuel gas system, or vapor balancing in accordance with the requirements in 40 CFR 63.119(b), (c), (d), (e), (f), or (g) or equivalent as provided in 40 CFR 63.121. Subpart G. [40 CFR 63.119(a)(1)]
- 503 Submit an Initial Notification as required by 40 CFR 63.151(b). Subpart G. [40 CFR 63.122(a)(1)]
- 504 Submit a Notification of Compliance Status as required by 40 CFR 63.152(b). Include the information specified in 40 CFR 63.122(c). Subpart G. [40 CFR 63.122(a)(3)]
- 505 Submit Periodic Reports as required by 40 CFR 63.152(d). Include the information specified in 40 CFR 63.122(d), (e), (f), and (g). Subpart G. [40 CFR 63.122(a)(4)]
- 506 Submit, as applicable, other reports as required by 40 CFR 63.152(d). Include the information specified in 40 CFR 63.122(h). Subpart G. [40 CFR 63.122(a)(5)]
- 507 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep readily accessible records of the information specified in 40 CFR 63.123(a) through (i), as applicable. Keep the records as long as the storage vessel retains Group 1 status and is in operation. Subpart G. [40 CFR 63.123]

ETH-D7-983 - Off-Sites Low Pressure Wet Flare Header Knockout Drum**EQT433**

- 508 Fixed roof: Ensure that the cover and all openings are designed to operate with no detectable emissions as indicated by an instrument reading less than 500 ppmv above background, as determined initially and thereafter at least once per year by the methods specified in 40 CFR 61.355(h). Subpart FF. [40 CFR 61.343(a)(1)(i)(A)]
- 509 Fixed roof: Maintain each opening in a closed, sealed position at all times that waste is in the tank except when it is necessary to use the opening for waste sampling or removal, or for equipment inspection, maintenance, or repair, except as specified in 40 CFR 61.343(a)(1)(i)(C). Subpart FF. [40 CFR 61.343(a)(1)(i)(B)]
- 510 Install, operate, and maintain a fixed-roof and closed-vent system that routes all organic vapors vented from the tank to a control device. Subpart FF. [40 CFR 61.343(a)(1)]

SPECIFIC REQUIREMENTS**AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex****Activity Number: PER20060002****Permit Number: 2743-V2****Air - Title V Regular Permit Renewal****EQT433****ETH-D7-983 - Off-Sites Low Pressure Wet Flare Header Knockout Drum**

- 511 Install, operate, and maintain an enclosure and closed-vent system that routes all organic vapors vented from the tank, located inside the enclosure, to a control device in accordance with the requirements specified in 40 CFR 61.343(e). Subpart FF. [40 CFR 61.343(e)(2)]
- 512 Fixed-roof: Equipment/operational data monitored by visual inspection/determination once initially and once every quarter thereafter to ensure that no cracks or gaps occur and that access doors and other openings are closed and gasketed properly. Subpart FF. [40 CFR 61.343(c)]
- Which Months: All Year Statistical Basis: None specified
- 513 Make first efforts at repair as soon as practicable, but not later than 45 calendar days after a broken seal or gasket or other problem is identified, or when detectable emissions are measured, except as provided in 40 CFR 61.350. Subpart FF. [40 CFR 61.343(d)]
- 514 Meet the requirements specified in 40 CFR 63.343(e)(1) through (e)(4). Subpart FF. [40 CFR 61.343(e)]
- 515 Determine compliance with 40 CFR 61 Subpart FF using the test methods and procedures specified in 40 CFR 61.355(a) through (i), as applicable. Subpart FF. [40 CFR 61.355]
- 516 Equipment/operational data recordkeeping by electronic or hard copy continuously Maintain records as specified in 40 CFR 61.356(a) through (n). Maintain each record in a readily accessible location at the facility site for a period not less than two years from the date the information is recorded unless otherwise specified. Subpart FF. [40 CFR 61.356]
- 517 Manage and treat waste streams according to any of the options in 40 CFR 61.342(c)(1) through (e). Subpart XX. [40 CFR 63.1095(b)(2)]
- 518 Comply with the requirements of 40 CFR 61 Subpart FF, except as specified in 40 CFR 63 Subpart XX Table 2. Subpart XX. [40 CFR 63.1095(b)]

EQT434**ETH-D7-984 - Off-Sites Low Pressure Wet Flare Header Knockout Transfer Pot**

- 519 Fixed roof: Ensure that the cover and all openings are designed to operate with no detectable emissions as indicated by an instrument reading less than 500 ppmv above background, as determined initially and thereafter at least once per year by the methods specified in 40 CFR 61.355(h). Subpart FF. [40 CFR 61.343(a)(1)(i)(A)]
- 520 Fixed roof: Maintain each opening in a closed, sealed position at all times that waste is in the tank except when it is necessary to use the opening for waste sampling or removal, or for equipment inspection, maintenance, or repair, except as specified in 40 CFR 61.343(a)(1)(i)(C). Subpart FF. [40 CFR 61.343(a)(1)(i)(B)]
- 521 Install, operate, and maintain a fixed-roof and closed-vent system that routes all organic vapors vented from the tank to a control device. Subpart FF. [40 CFR 61.343(a)(1)]
- 522 Install, operate, and maintain an enclosure and closed-vent system that routes all organic vapors vented from the tank, located inside the enclosure, to a control device in accordance with the requirements specified in 40 CFR 61.343(e). Subpart FF. [40 CFR 61.343(a)(2)]
- 523 Fixed-roof: Equipment/operational data monitored by visual inspection/determination once initially and once every quarter thereafter to ensure that no cracks or gaps occur and that access doors and other openings are closed and gasketed properly. Subpart FF. [40 CFR 61.343(c)]
- Which Months: All Year Statistical Basis: None specified
- 524 Make first efforts at repair as soon as practicable, but not later than 45 calendar days after a broken seal or gasket or other problem is identified, or when detectable emissions are measured, except as provided in 40 CFR 61.350. Subpart FF. [40 CFR 61.343(d)]
- 525 Meet the requirements specified in 40 CFR 63.343(e)(1) through (e)(4). Subpart FF. [40 CFR 61.343(e)]
- 526 Determine compliance with 40 CFR 61 Subpart FF using the test methods and procedures specified in 40 CFR 61.355(a) through (i), as applicable. Subpart FF. [40 CFR 61.355]
- 527 Equipment/operational data recordkeeping by electronic or hard copy continuously Maintain records as specified in 40 CFR 61.356(a) through (n). Maintain each record in a readily accessible location at the facility site for a period not less than two years from the date the information is recorded unless otherwise specified. Subpart FF. [40 CFR 61.356]
- 528 Manage and treat waste streams according to any of the options in 40 CFR 61.342(c)(1) through (e). Subpart XX. [40 CFR 63.1095(b)(2)]
- 529 Comply with the requirements of 40 CFR 61 Subpart FF, except as specified in 40 CFR 63 Subpart XX Table 2. Subpart XX. [40 CFR 63.1095(b)]

EQT435**ETH-FA-801 - Wet Flare Drum D7-801**

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

ETH-FA-801 - Wet Flare Drum D7-801**EQT435**

- 530 Fixed roof: Ensure that the cover and all openings are designed to operate with no detectable emissions as indicated by an instrument reading less than 500 ppmv above background, as determined initially and thereafter at least once per year by the methods specified in 40 CFR 61.355(h). Subpart FF. [40 CFR 61.343(a)(1)(i)(A)]
 531 Fixed roof: Maintain each opening, in a closed, sealed position at all times that waste is in the tank except when it is necessary to use the opening for waste sampling or removal, or for equipment inspection, maintenance, or repair, except as specified in 40 CFR 61.343(a)(1)(i)(C). Subpart FF. [40 CFR 61.343(a)(1)(i)(B)]
 532 Install, operate, and maintain a fixed-roof and closed-vent system that routes all organic vapors vented from the tank to a control device. Subpart FF. [40 CFR 61.343(a)(1)]
 533 Install, operate, and maintain an enclosure and closed-vent system that routes all organic vapors vented from the tank, located inside the enclosure, to a control device in accordance with the requirements specified in 40 CFR 61.343(e). Subpart FF. [40 CFR 61.343(a)(2)]
 534 Fixed-roof: Equipment/operational data monitored by visual inspection/determination once initially and once every quarter thereafter to ensure that no cracks or gaps occur and that access doors and other openings are closed and gasketed properly. Subpart FF. [40 CFR 61.343(c)]

Which Months: All Year Statistical Basis: None specified

- 535 Make first efforts at repair as soon as practicable, but not later than 45 calendar days after a broken seal or gasket or other problem is identified, or when detectable emissions are measured, except as provided in 40 CFR 61.350. Subpart FF. [40 CFR 61.343(d)]
 536 Meet the requirements specified in 40 CFR 63.343(e)(1) through (e)(4). Subpart FF. [40 CFR 61.343(e)]
 537 Determine compliance with 40 CFR 61 Subpart FF using the test methods and procedures specified in 40 CFR 61.355(a) through (i), as applicable. Subpart FF. [40 CFR 61.355]
 538 Equipment/operational data recordkeeping by electronic or hard copy continuously. Maintain records as specified in 40 CFR 61.356(a) through (n). Maintain each record in a readily accessible location at the facility site for a period not less than two years from the date the information is recorded unless otherwise specified. Subpart FF. [40 CFR 61.356]
 539 Manage and treat waste streams according to any of the options in 40 CFR 61.342(c)(1) through (e). Subpart XX. [40 CFR 63.1095(b)(2)]
 540 Comply with the requirements of 40 CFR 61 Subpart FF, except as specified in 40 CFR 63 Subpart XX Table 2. Subpart XX. [40 CFR 63.1095(b)]

ETH-FB-803 - Methanol / Propanol Storage Tank**EQT436**

- 541 Equip with a vapor loss control system, consisting of a gathering system capable of collecting volatile organic compound vapors and a vapor disposal system capable of processing such organic vapors. All tank gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place. [LAC 33:III.2103.A]
 542 VOC, Total $\geq 95\%$ control efficiency using a vapor loss control system. This limitation does not apply during periods of planned routine maintenance which may not exceed 240 hours per year. [LAC 33:III.2103.E.]
 Which Months: All Year Statistical Basis: None specified
 543 Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3.a-e. [LAC 33:III.2103.H.3]
 544 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in LAC 33:III.2103.I.1 - 7, as applicable. [LAC 33:III.2103.I.]

ETH-HA-104 - MEROX Satellite Tank**EQT438**

- 545 Equip with a submerged fill pipe. [LAC 33:III.2103.A]
 546 Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3.a-e. [LAC 33:III.2103.H.3]
 547 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in LAC 33:III.2103.I.1 - 7, as applicable. [LAC 33:III.2103.I.]

ETH-HA-203 - Caustic Tower Degassing Pot**EQT439**

SPECIFIC REQUIREMENTS**AI ID: 3271 - Sasso North America Inc - Lake Charles Chemical Complex****Activity Number: PER20060002****Permit Number: 2743-V2****Air - Title V Regular Permit Renewal****EQT439 ETH-HA-203 - Caustic Tower Degassing Pot**

548 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Shall be equipped with a closed vent and a flare system - Determined as MACT. [LAC 33.III.5109.A]

EQT440 ETH-HA-204 - Water Wash Pot for Caustic Tower

549 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Shall be equipped with a closed vent and a flare system - Determined as MACT. [LAC 33.III.5109.A]

EQT441 ETH-W7-901 - Benzene Stripper

550 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Shall comply with 40 CFR 63 Subpart G - Determined as MACT. [LAC 33.III.5109.A]

551 Waste stream: Benzene < 10 ppmw (flow-weighted). Subpart FF. [40 CFR 61.348(a)(1)(i)]

Which Months: All Year Statistical Basis: Annual average

552 Demonstrate that each treatment process or wastewater treatment system unit, except as specified in 40 CFR 61.348(d), achieves the appropriate conditions specified in 40 CFR 61.248(a) or (b) in accordance with the requirements in 40 CFR 61.348(c)(1) and (c)(2). Subpart FF. [40 CFR 61.348(c)]

553 Seals and/or openings: Equipment/operational data monitored by visual inspection/determination once initially and once every quarter thereafter to ensure that no cracks or gaps occur and that openings are closed and gasketed properly. Subpart FF. [40 CFR 61.348(e)(1)]

Which Months: All Year Statistical Basis: None specified
554 Make first efforts at repair as soon as practicable, but not later than 15 calendar days after a broken seal or gasket or other problem is identified, except as provided in 40 CFR 61.350. Subpart FF. [40 CFR 61.348(e)(2)]

555 Seal any openings and keep closed at all times when waste is being treated, except during inspection and maintenance, except as specified in 40 CFR 61.348(e)(3). Subpart FF. [40 CFR 61.348(e)]

556 Benzene monitored by the regulation's specified method(s) monthly. Measure the benzene concentration of the waste stream exiting the treatment process by collecting and analyzing one or more samples using the procedures specified in 40 CFR 61.355(c)(3). Subpart FF. [40 CFR 61.354(a)(1)]

Which Months: All Year Statistical Basis: None specified

557 Determine compliance with 40 CFR 61 Subpart FF using the test methods and procedures specified in 40 CFR 61.355(a) through (i), as applicable. Subpart FF. [40 CFR 61.355]

558 Equipment/operational data recordkeeping by electronic or hard copy continuously Maintain records as specified in 40 CFR 61.356(a) through (n). Maintain each record in a readily accessible location at the facility site for a period not less than two years from the date the information is recorded unless otherwise specified. Subpart FF. [40 CFR 61.356]

559 Manage and treat waste streams according to any of the options in 40 CFR 61.342(c)(1) through (e). Subpart XX. [40 CFR 63.1095(b)(2)]

560 Comply with the requirements of 40 CFR 61 Subpart FF, except as specified in 40 CFR 63 Subpart XX Table 2. Subpart XX. [40 CFR 63.1095(b)]

561 Determine whether each wastewater stream requires control for Table 9 compounds by complying with the requirements in 40 CFR 63.132(a)(1)(i) or (a)(1)(ii), and (a)(1)(iii). Subpart G. [40 CFR 63.132(a)(1)]

562 Determine total annual average concentration of Table 9 compounds according to the procedures in 40 CFR 63.144(b), and determine annual average flow rate according to the procedures in 40 CFR 63.144(c), to determine whether a wastewater stream is Group 1 or Group 2 for Table 9 compounds. Subpart G. [40 CFR 63.132(c)]

563 Determine annual average concentration for each Table 8 compound according to the procedures specified in 40 CFR 63.144(b), and determine annual average flow rate according to the procedures specified in 40 CFR 63.144(c), to determine whether a wastewater stream is Group 1 or Group 2 for Table 8 compounds. Subpart G. [40 CFR 63.132(d)]

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasol North America Inc. - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

ETH-W7-901 - Benzene Stripper**EQT441**

- 564 Do not discard liquid or solid organic materials with a concentration of greater than 10,000 ppm of Table 9 compounds (as determined by analysis of the stream composition, engineering calculations, or process knowledge; according to the provisions of 40 CFR 63.144(l)) from a chemical manufacturing process unit to water or wastewater, unless the receiving stream is managed and treated as a Group 1 wastewater stream. Subpart G. [40 CFR 63.132(f)]
- 565 Table 9 compounds: Organic HAP < 50 ppmw as determined by the procedures specified in 40 CFR 63.145(b). Subpart G. [40 CFR 63.138(b)(1)(i)]
- Which Months: All Year Statistical Basis: None specified
- 566 Table 8 compounds: Organic HAP < 10 ppmw as determined by the procedures specified in 40 CFR 63.145(b). Subpart G. [40 CFR 63.138(c)(1)(i)]
- Which Months: All Year Statistical Basis: None specified
- 567 Demonstrate compliance with 40 CFR 63.138(b)(1), (c)(1), (e), (f), and/or (g) using the procedures in either 40 CFR 63.138(j)(1) or (j)(2), except as specified in 40 CFR 63.138(j)(3) or (h). Subpart G. [40 CFR 63.138(j)]
- 568 Residuals (Table 8 and/or Table 9 compounds): Organic HAP \geq 99 % destruction efficiency, as determined by the procedures specified in 40 CFR 63.145(c) or (d). Subpart G. [40 CFR 63.138(k)(3)]
- 569 Equipment/operational data recordkeeping by electronic or hard copy continuously. Maintain records specified in 40 CFR 63.147(a) through (f), as applicable. Subpart G. [40 CFR 63.147]
- 570 Comply with the provisions of 40 CFR 63 Subpart G Table 35 for each item of equipment meeting all the criteria specified in 40 CFR 63.149(b) through (d) and either (e)(1) or (e)(2). Subpart G. [40 CFR 63.149(a)]

ETH-T7-901 - Light Aromatic Concentrate Storage Bullet**EQT445**

- 571 Equip with a vapor loss control system, consisting of a gathering system capable of collecting volatile organic compound vapors and a vapor disposal system capable of processing such organic vapors. All tank gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place. [LAC 33:III.2|03.A]
- 572 VOC, Total \geq 95 % control efficiency using a vapor loss control system. This limitation does not apply during periods of planned routine maintenance which may not exceed 240 hours per year. [LAC 33:III.2|03.E.1]
- Which Months: All Year Statistical Basis: None specified

- 573 Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2|03.H.3 a-e. [LAC 33:III.2|03.H.3]

- 574 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in LAC 33:III.2|03.I.1 - 7, as applicable. [LAC 33:III.2|03.I]

ETH-T7-975 - Tank T7-975**EQT446**

- 575 Shall maintain the TRE index $>$ 5 by the compliance date of the subpart. Shall determine the total resource effectiveness (TRE) index value as specified in 40 CFR 63.115(d). [40 CFR 63.2455(b)]

FUG002 STM-FE-1 - Steam Unit Fugitives

- 576 Equip all rotary pumps and compressors handling volatile organic compounds having a true vapor pressure of 1.5 psia or greater at handling conditions with mechanical seals or other equivalent equipment. [LAC 33:II.2|111]
- 577 Repair according to LAC 33:III.2|22.C.3 any regulated component observed leaking by sight, sound, or smell, regardless of the leak's concentration, except those covered under LAC 33:III.2|22.C.1.d. [LAC 33:III.2|22.C.1.c]
- 578 Pumps and valves in heavy liquid service: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 within 5 days if observed leaking by sight, sound, or smell. Repair according to LAC 33:III.2|22.C.3 if the pump or valve is determined to be leaking in excess of the applicable limits given in LAC 33:III.2|22.C.1.d]
- Which Months: All Year Statistical Basis: None specified

SPECIFIC REQUIREMENTS**AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex****Activity Number: PER20060002****Permit Number: 2743-V2****Air - Title V Regular Permit Renewal****FUG002 STM-FE-1 - Steam Unit Fugitives**

- 579 Do not locate any valve, except safety pressure relief valves, at the end of a pipe or line containing volatile organic compounds unless the end of such line is sealed with a second valve, a blind flange, a plug, or a cap. Remove such sealing devices only when the line is in use, for example, when a sample is being taken. When the line has been used and is subsequently resealed, close the upstream valve first, followed by the sealing device. [LAC 33:III.2122.C.2]
- 580 Make every reasonable effort to repair a leaking component, as described in LAC 33:III.2122, within 15 days, except as provided [LAC 33:III.2122.C.3]
- 581 Determine the percent of leaking components at a process unit for a test period using the equation in LAC 33:III.2122.C.4. [LAC 33:III.2122.C.4]
- 582 Determine the total percent of leaking and unrepairable components using the equation in LAC 33:III.2122.C.5. [LAC 33:III.2122.C.5]
- 583 Process drains: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 annually (one time per year). If a reading of 1,000 ppmv or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in LAC 33:III.2122.C.3. [LAC 33:III.2122.D.1.a]
- Which Months: All Year Statistical Basis: None specified
- 584 Compressor seals: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 quarterly (four times a year). If a reading of 5,000 ppmv or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in LAC 33:III.2122.C.3. [LAC 33:III.2122.D.1.b.i]
- Which Months: All Year Statistical Basis: None specified
- 585 Pressure relief valves in gas service: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 quarterly (four times a year). If a reading of 1,000 ppmv or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in LAC 33:III.2122.C.3. [LAC 33:III.2122.D.1.b.ii]
- Which Months: All Year Statistical Basis: None specified
- 586 Valves in liquid service: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 quarterly (four times a year). If a reading of 1,000 ppmv or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in LAC 33:III.2122.C.3. Permittee may elect to comply with the alternate standards for valves in LAC 33:III.2122.E. (skip period provisions). [LAC 33:III.2122.D.1.b.iii]
- Which Months: All Year Statistical Basis: None specified
- 587 Pumps in liquid service: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 quarterly (four times a year). If a reading of 5,000 ppmv or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in LAC 33:III.2122.C.3. [LAC 33:III.2122.D.1.b.iv]
- Which Months: All Year Statistical Basis: None specified
- 588 Valves in gas service: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 quarterly (four times a year). If a reading of 1,000 ppmv or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in LAC 33:III.2122.C.3. Permittee may elect to comply with the alternate standards for valves in LAC 33:III.2122.E. (skip period provisions). [LAC 33:III.2122.D.1.b.v]
- Which Months: All Year Statistical Basis: None specified
- 589 Pumps: Seal or closure mechanism monitored by visual inspection/determination weekly (52 times a year). [LAC 33:III.2122.D.1.c]
- Which Months: All Year Statistical Basis: None specified
- 590 Flanged connectors: Presence of a leak monitored by visual, audible, and/or olfactory weekly or by 40 CFR 60, Appendix A, Method 21 quarterly according to LAC 33:III.507.G.5. [LAC 33:III.2122.D.1.d]
- Which Months: All Year Statistical Basis: None specified
- 591 Instrumentation systems: Presence of a leak monitored by visual, audible, and/or olfactory weekly. [LAC 33:III.2122.D.1.e]
- Which Months: All Year Statistical Basis: None specified
- 592 Pressure relief valves: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 within 24 hours after venting to the atmosphere. If a reading of 1,000 ppmv or greater (for petroleum refineries, SOCMIs, MTBE, and polymer manufacturing industry) or 2,500 ppmv or greater (for natural gas processing plants) is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in LAC 33:III.2122.C.3. [LAC 33:III.2122.D.3.a]
- Which Months: All Year Statistical Basis: None specified

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

FUG002 STM-FE-1 - Steam Unit Fugitives

593 All components: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 upon each occurrence of a leak detected by sight, smell, or sound, unless electing to implement actions as specified in LAC 33:III.2122.C.3. [LAC 33:III.2122.D.3.b]

Which Months: All Year Statistical Basis: None specified

594 Inaccessible valves: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 annually (at a minimum). [LAC 33:III.2122.D.3.c]

Which Months: All Year Statistical Basis: None specified

595 Unsafe-to-monitor valves: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 upon each occurrence of conditions allowing these valves to be monitored safely. [LAC 33:III.2122.D.3.d]

Which Months: All Year Statistical Basis: None specified

596 When a component which has a leak that cannot be repaired, as described in LAC 33:III.2122.C, is located, affix to the leaking component a weatherproof and readily visible tag bearing an identification number and the date the leak is located. Remove the tag after the leak has been repaired. [LAC 33:III.2122.F.1]

597 Equipment/operational data recordkeeping by survey log upon each occurrence of a leak. Include the leaking component information specified in LAC 33:III.2122.F.2.a through j. Retain the survey log for two years after the latter date specified in LAC 33:III.2122.F.2 and make said log available to DEQ upon request. [LAC 33:III.2122.F]

598 Submit report: Due semiannually, by the 31st of January and July, to the Office of Environmental Assessment, Air Quality Assessment Division. Include the information specified in LAC 33:III.2122.G.1 through 6 for each calendar quarter during the reporting period. [LAC 33:III.2122.G]

599 Shall comply with LAC 33:III.2122 - Determined as MACT. [LAC 33:III.5109.A]

FUG006 ASU-FE-1 - Active Sludge Unit Fugitive

600 Equip all rotary pumps and compressors handling volatile organic compounds having a true vapor pressure of 1.5 psia or greater at handling conditions with mechanical seals or other equivalent equipment. [LAC 33:III.2111]

601 Repair according to LAC 33:III.2122.C.3 any regulated component observed leaking by sight, sound, or smell, regardless of the leak's concentration, except those covered under LAC 33:III.2122.C.1.d. [LAC 33:III.2122.C.1.c]

602 Pumps and valves in heavy liquid service: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 within 5 days if observed leaking by sight, sound, or smell. Repair according to LAC 33:III.2122.C.3 if the pump or valve is determined to be leaking in excess of the applicable limits given in LAC 33:III.2122.C.1.d]

Which Months: All Year Statistical Basis: None specified

603 Do not locate any valve, except safety pressure relief valves, at the end of a pipe or line containing volatile organic compounds unless the end of such line is sealed with a second valve, a blind flange, a plug, or a cap. Remove such sealing devices only when the line is in use, for example, when a sample is being taken. When the line has been used and is subsequently resealed, close the upstream valve first, followed by the sealing device. [LAC 33:III.2122.C.2]

604 Make every reasonable effort to repair a leaking component, as described in LAC 33:III.2122, within 15 days, except as provided. [LAC 33:III.2122.C.3]

605 Determine the percent of leaking components at a process unit for a test period using the equation in LAC 33:III.2122.C.4. [LAC 33:III.2122.C.4]

606 Determine the total percent of leaking and unrepairable components using the equation in LAC 33:III.2122.C.5. [LAC 33:III.2122.C.5]

607 Process drains: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 annually (one time per year). If a reading of 1,000 ppmv or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in LAC 33:III.2122.C.3. [LAC 33:III.2122.D.1.a]

Which Months: All Year Statistical Basis: None specified

608 Compressor seals: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 quarterly (four times a year). If a reading of 5,000 ppmv or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in LAC 33:III.2122.C.3. [LAC 33:III.2122.D.1.b.i]

Which Months: All Year Statistical Basis: None specified

AIID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex
Activity Number: PER20060002
Permit Number: 2743-V2
Air - Title V Regular Permit Renewal

SPECIFIC REQUIREMENTS

FUG006 ASU-FE-1 - Active Sludge Unit Fugitive

- 609 Pressure relief valves in gas service: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 quarterly (four times a year). If a reading of 1,000 ppmv or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in LAC 33:III.2122.C.3. [LAC 33:III.2122.D.1.b.ii]
- Which Months: All Year Statistical Basis: None specified
- 610 Valves in liquid service: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 quarterly (four times a year). If a reading of 1,000 ppmv or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in LAC 33:III.2122.C.3. Permittee may elect to comply with the alternate standards for valves in LAC 33:III.2122.E (skip period provisions). [LAC 33:III.2122.D.1.b.iii]
- Which Months: All Year Statistical Basis: None specified
- 611 Pumps in liquid service: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 quarterly (four times a year). If a reading of 5,000 ppmv or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in LAC 33:III.2122.C.3. [LAC 33:III.2122.D.1.b.iv]
- Which Months: All Year Statistical Basis: None specified
- 612 Valves in gas service: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 quarterly (four times a year). If a reading of 1,000 ppmv or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in LAC 33:III.2122.C.3. Permittee may elect to comply with the alternate standards for valves in LAC 33:III.2122.E (skip period provisions). [LAC 33:III.2122.D.1.b.v]
- Which Months: All Year Statistical Basis: None specified
- 613 Pumps: Seal or closure mechanism monitored by visual inspection/determination weekly (52 times a year). [LAC 33:III.2122.D.1.c]
- Which Months: All Year Statistical Basis: None specified
- 614 Flanged connectors: Presence of a leak monitored by visual, audible, and/or olfactory weekly. [LAC 33:III.2122.D.1.d.i]
- Which Months: All Year Statistical Basis: None specified
- 615 Instrumentation systems: Presence of a leak monitored by visual, audible, and/or olfactory weekly. [LAC 33:III.2122.D.1.e]
- Which Months: All Year Statistical Basis: None specified
- 616 Pressure relief valves: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 within 24 hours after venting to the atmosphere. If a reading of 1,000 ppmv or greater (for petroleum refineries, SOCM1, MTBE, and polymer manufacturing industry) or 2,500 ppmv or greater (for natural gas processing plants) is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in LAC 33:III.2122.C.3. [LAC 33:III.2122.D.3.a]
- Which Months: All Year Statistical Basis: None specified
- 617 All components: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 upon each occurrence of a leak detected by sight, smell, or sound, unless electing to implement actions as specified in LAC 33:III.2122.C.3. [LAC 33:III.2122.D.3.b]
- Which Months: All Year Statistical Basis: None specified
- 618 Inaccessible valves: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 annually (at a minimum). [LAC 33:III.2122.D.3.c]
- Which Months: All Year Statistical Basis: None specified
- 619 Unsafe-to-monitor valves: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 upon each occurrence of conditions allowing these valves to be monitored safely. [LAC 33:III.2122.D.3.d]
- Which Months: All Year Statistical Basis: None specified
- 620 When a component which has a leak that cannot be repaired, as described in LAC 33:III.2122.C, is located, affix to the leaking component a weatherproof and readily visible tag bearing an identification number and the date the leak is located. Remove the tag after the leak has been repaired. [LAC 33:III.2122.F.1]
- 621 Equipment/operational data recordkeeping by survey log upon each occurrence of a leak. Include the leaking component information specified in LAC 33:III.2122.F.2 through j. Retain the survey log for two years after the latter date specified in LAC 33:III.2122.F.2 and make said log available to DEQ upon request. [LAC 33:III.2122.F]
- 622 Submit report: Due semiannually, by the 31st of January and July, to the Office of Environmental Assessment, Environmental Technology Division. Include the information specified in LAC 33:III.2122.G.1 through 6 for each calendar quarter during the reporting period. [LAC 33:III.2122.G]
- 623 Shall comply with LAC 33:III.2122 . Determined as MACT. [LAC 33:III.5109.A]

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

FUG008 ETH-FE-1-E - Ethylene Unit Fugitive

- 624 Equip all rotary pumps and compressors handling volatile organic compounds having a true vapor pressure of 1.5 psia or greater at handling conditions with mechanical seals or other equivalent equipment. [LAC 33:III.2122.C.1.i]
- 625 Repair according to LAC 33:III.2122.C.3 any regulated component observed leaking by sight, sound, or smell, regardless of the leak's concentration, except those covered under LAC 33:III.2122.C.1.d. [LAC 33:III.2122.C.1.c]
- 626 Pumps and valves in heavy liquid service: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 within 5 days if observed leaking by sight, sound, or smell. Repair according to LAC 33:III.2122.C.3 if the pump or valve is determined to be leaking in excess of the applicable limits given in LAC 33:III.2122.C.1.d] Which Months: All Year Statistical Basis: None specified
- 627 Do not locate any valve, except safety pressure relief valves, at the end of a pipe or line containing volatile organic compounds unless the end of such line is sealed with a second valve, a blind flange, a plug, or a cap. Remove such sealing devices only when the line is in use, for example, when a sample is being taken. When the line has been used and is subsequently resealed, close the upstream valve first, followed by the sealing device. [LAC 33:III.2122.C.2]
- 628 Make every reasonable effort to repair a leaking component, as described in LAC 33:III.2122, within 15 days, except as provided. [LAC 33:III.2122.C.3]
- 629 Determine the percent of leaking components at a process unit for a test period using the equation in LAC 33:III.2122.C.4. [LAC 33:III.2122.C.4]
- 630 Determine the total percent of leaking and unrepairable components using the equation in LAC 33:III.2122.C.5. [LAC 33:III.2122.C.5]
- 631 Process drains: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 annually (one time per year). If a reading of 1,000 ppmv or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in LAC 33:III.2122.C.3. [LAC 33:III.2122.D.1.a]
- Which Months: All Year Statistical Basis: None specified
- 632 Compressor seals: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 quarterly (four times a year). If a reading of 5,000 ppmv or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in LAC 33:III.2122.D.1.b.i] Which Months: All Year Statistical Basis: None specified
- 633 Pressure relief valves in gas service: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 quarterly (four times a year). If a reading of 1,000 ppmv or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in LAC 33:III.2122.C.3. Permittee may elect to comply with the alternate standards for valves in LAC 33:III.2122.E (skip period provisions). [LAC 33:III.2122.D.1.b.ii]
- Which Months: All Year Statistical Basis: None specified
- 634 Valves in light liquid service: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 quarterly (four times a year). If a reading of 1,000 ppmv or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in LAC 33:III.2122.C.3. Permittee may elect to comply with the alternate standards for valves in LAC 33:III.2122.E (skip period provisions). [LAC 33:III.2122.D.1.b.iii]
- Which Months: All Year Statistical Basis: None specified
- 635 Pumps in light liquid service: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 quarterly (four times a year). If a reading of 5,000 ppmv or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in LAC 33:III.2122.D.1.b.iv] Which Months: All Year Statistical Basis: None specified
- 636 Valves in gas service: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 quarterly (four times a year). If a reading of 1,000 ppmv or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in LAC 33:III.2122.C.3. Permittee may elect to comply with the alternate standards for valves in LAC 33:III.2122.E (skip period provisions). [LAC 33:III.2122.D.1.b.v]
- Which Months: All Year Statistical Basis: None specified
- 637 Pumps: Seal or closure mechanism monitored by visual inspection/determination weekly (52 times a year). [LAC 33:III.2122.D.1.c]
- Which Months: All Year Statistical Basis: None specified
- 638 Flanged connectors: Presence of a leak monitored by visual, audible, and/or olfactory weekly. [LAC 33:III.2122.D.1.d.i]
- Which Months: All Year Statistical Basis: None specified
- 639 Instrumentation systems: Presence of a leak monitored by visual, audible, and/or olfactory weekly. [LAC 33:III.2122.D.1.e]
- Which Months: All Year Statistical Basis: None specified

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasso North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

FUG008 ETH-FE-1-E - Ethylene Unit Fugitive

640 Pressure relief valves: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 within 24 hours after venting to the atmosphere. If a reading of 1,000 ppmv or greater (for petroleum refineries, SOCM1, MTBE, and polymer manufacturing industry) or 2,500 ppmv or greater (for natural gas processing plants) is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in LAC 33:III.2122.C.3. [LAC 33:III.2122.D.3.a]

Which Months: All Year Statistical Basis: None specified

641 All components: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 upon each occurrence of a leak detected by sight, smell, or sound, unless electing to implement actions as specified in LAC 33:III.2122.C.3. [LAC 33:III.2122.D.3.b]

Which Months: All Year Statistical Basis: None specified

642 Inaccessible valves: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 annually (at a minimum). [LAC 33:III.2122.D.3.c]

Which Months: All Year Statistical Basis: None specified

643 Unsafe-to-monitor valves: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 upon each occurrence of conditions allowing these valves to be monitored safely. [LAC 33:III.2122.D.3.d]

Which Months: All Year Statistical Basis: None specified

644 When a component which has a leak that cannot be repaired, as described in LAC 33:III.2122.C, is located, affix to the leaking component a weatherproof and readily visible tag bearing an identification number and the date the leak is located. Remove the tag after the leak has been repaired. [LAC 33:III.2122.F.1]

645 Equipment/operational data recordkeeping by survey log upon each occurrence of a leak. Include the leaking component information specified in LAC 33:III.2122.F.2.a through j. Retain the survey log for two years after the latter date specified in LAC 33:III.2122.F.2 and make said log available to DEQ upon request. [LAC 33:III.2122.F]

646 Submit report. Due semiannually, by the 31st of January and July, to the Office of Environmental Assessment, Air Quality Assessment Division. Include the information specified in LAC 33:III.2122.G.1 through 6 for each calendar quarter during the reporting period. [LAC 33:III.2122.G]

647 Identify each piece of equipment in a process unit subject to this MACT determination such that it can be distinguished readily from equipment that is not subject to this MACT determination, as specified in Subsection C.3 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). [LAC 33:III.5109.A]

648 VOC, Total monitored by technically sound method within 90 days of placing equipment back in service that had been physically removed from service, disassembled or dismantled to determine if it is leaking, as specified in Subsection C.5 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). [LAC 33:III.5109.A]

Which Months: All Year Statistical Basis: None specified

649 VOC, Total recordkeeping by logbook within 90 days of placing equipment back in service that had been physically removed from service, disassembled or dismantled. Maintain records as required in Subsection Q.5, as specified in Subsection C.5 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). [LAC 33:III.5109.A]

650 Pumps in light liquid service: VOC, Total monitored by the regulation's specified method(s) quarterly. Monitor to detect leaks using the methods specified in Subsection P.2, except as provided in Subsection C.4 and Subsections D.4, D.5, and D.6, as specified in Paragraph D.1.a of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). If an instrument reading of 2000 ppm or greater is measured, a leak is detected. If a leak is detected, initiate repair provisions as specified in Subsection D.3. [LAC 33:III.5109.A]

Which Months: All Year Statistical Basis: None specified

651 Pumps in light liquid service: Presence of a leak monitored by visual inspection/determination weekly (calendar), as specified in Paragraph D.1.b of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). If there are indications of liquids dripping from the pump seal, monitor within 5 days by the methods specified in Subsection P.2. [LAC 33:III.5109.A]

Which Months: All Year Statistical Basis: None specified

652 Pumps in light liquid service: Repair leaks as soon as practicable, but not later than 15 calendar days after a leak is detected, except as provided in Section M, as specified in Subsection D.3 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Make a first attempt at repair no later than 5 calendar days after each leak is detected. [LAC 33:III.5109.A]

SPECIFIC REQUIREMENTS**AI ID: 3271 - Sasp! North America Inc - Lake Charles Chemical Complex****Activity Number: PER20060002****Permit Number: 2743-V2****Air - Title V Regular Permit Renewal****FUG008 ETH-FE-1-E - Ethylene Unit Fugitive**

- 653 Pumps in light liquid service (dual mechanical seal system): Operate with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressure, or equip with a barrier fluid degassing reservoir that is connected by a closed-vent system to a control device that complies with the requirements of Section N, or equip with a system that purges the barrier fluid into a process stream with zero VOTAP emissions to the atmosphere, as specified in Paragraph D.4. a of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Comply with this requirement instead of the requirements in Subsection D.1. [LAC 33:III.5109.A]
- 654 Pumps in light liquid service (dual mechanical seal system): Ensure that the barrier fluid is not in VOTAP service and, if the pump is covered by standards under NSPS, is not in VOC service, as specified in Paragraph D.4.b of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Comply with this requirement instead of the requirements in Subsection D.1. [LAC 33:III.5109.A]
- 655 Pumps in light liquid service (dual mechanical seal system): Equip each barrier fluid system with a sensor that will detect failure of the seal system, the barrier fluid system, or both, as specified in Paragraph D.4.c of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Comply with this requirement instead of the requirements in Subsection D.1. [LAC 33:III.5109.A]
- 656 Pumps in light liquid service (dual mechanical seal system): Presence of a leak monitored by visual inspection/determination weekly (calendar), as specified in Paragraph D.4.d of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). If there are indications of liquids dripping from the pump seal, a leak is detected. If a leak is detected, initiate repair provisions specified in Paragraphs D.3.a and D.3.b. Comply with this requirement instead of the requirements in Subsection D.1. [LAC 33:III.5109.A]
- 657 Pumps in light liquid service (dual mechanical seal system): Equipment/operational data monitored by visual inspection/determination daily. Check sensor daily or equip with an audible alarm, as specified in Subparagraph D.4.e.i. of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). If the sensor indicates failure of the seal system, the barrier fluid system, or both based on the criterion determined in Paragraph D.4.e.ii, a leak is detected. If a leak is detected, initiate repair provisions specified in Paragraphs D.3.a and D.3.b. Comply with this requirement instead of the requirements in Subsection D.1. [LAC 33:III.5109.A]
- Which Months: All Year Statistical Basis: None specified
- 658 Pumps in light liquid service (dual mechanical seal system): Determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both, as specified in Subparagraph D.4.e.ii of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Comply with this requirement instead of the requirements in Subsection D.1. [LAC 33:III.5109.A]
- 659 Pumps in light liquid service: Equip with a closed-vent system capable of capturing and transporting any leakage from the seal or seals to a control device that complies with the requirements of Section N, as specified in Paragraph D.5 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Alternative to Subsections D.1 through D.4. [LAC 33:III.5109.A]
- 660 Pumps in light liquid service (unmanned plant site): Presence of a leak monitored by visual inspection/determination at the regulation's specified frequency, as specified in Subparagraph D.6 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Monitor pump as often as practicable and at least monthly. Comply with this requirement instead of the weekly visual inspection requirements in Paragraphs D.1.b and D.4.d, and the daily requirements in Paragraph D.4.e.i. [LAC 33:III.5109.A]
- Which Months: All Year Statistical Basis: None specified
- 661 Compressors (seal system): VOC, Total monitored by the regulation's specified method(s) quarterly, as specified in Subsection E.1 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Monitor to detect leaks using the methods specified in Section P. If an instrument reading of 5000 ppm is measured, a leak is detected. If a leak is detected, initiate repair provisions specified in Subsection E.8. [LAC 33:III.5109.A]
- Which Months: All Year Statistical Basis: None specified
- 662 Compressors: Equip with a seal system that includes a barrier fluid system and that prevents leakage of process fluid to the atmosphere, except as provided for in Subsections C.4, E.9 and E.10, as specified in Subsection E.2 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). [LAC 33:III.5109.A]

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasio North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-Y2

Air - Title V Regular Permit Renewal

FUG008 ETH-FE-1-E - Ethylene Unit Fugitive

- 663 Compressors (seal system): Operate with the barrier fluid at a pressure that is greater than the compressor stuffing box pressure, or equip with a barrier fluid system that is connected by a closed-vent system to a control device that complies with the requirements of Section N, or equip with a system that purges the barrier fluid into a process stream with zero VOTAP emission to the atmosphere, as specified in Subsection E.3 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). [LAC 33:III.5109.A]
- 664 Compressors: Ensure that the barrier fluid is not in VOTAP service and, if the compressor is covered by a standard under NSPS, is not in VOC service, as specified in Subsection E.4 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). [LAC 33:III.5109.A]
- 665 Compressors: Equip each barrier fluid system as described in Subsections E.2 through E.4 with a sensor that will detect failure of the seal system, the barrier fluid system, or both, as specified in Subsection E.5 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). [LAC 33:III.5109.A]
- 666 Compressors: Equipment/operational data monitored by technically sound method daily, as specified in Paragraph E.6.a of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Check each sensor as required in Subsection E.5 daily or equip with an audible alarm unless the compressor is located within the boundary of an unmanned plant site. If the sensor indicates failure of the seal system, the barrier fluid system, or both based on criterion determined under Paragraph E.6.b, a leak is detected. If a leak is detected, initiate repair provisions specified in Subsection E.8. [LAC 33:III.5109.A]
- Which Months: All Year Statistical Basis: None specified
- 667 Compressors: Determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both, as specified in Paragraph E.6.b of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). [LAC 33:III.5109.A]
- 668 Compressors: Repair leaks as soon as practicable, but not later than 15 calendar days after a leak is detected, except as provided in Section M, as specified in Subsection E.8 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Make a first attempt at repair no later than 5 calendar days after each leak is detected. [LAC 33:III.5109.A]
- 669 Compressors: Equip with a closed-vent system capable of capturing and transporting any leakage from the seal to a control device that complies with the requirements of Section N, except as provided for in Subsection E.10, as specified in Paragraph E.9 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995).
- Alternative to Subsections E.1 through E.7. [LAC 33:III.5109.A]
- 670 Compressors (no detectable emissions): Demonstrate that the compressor is operating with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the method specified in Subsection P.3, as specified in Paragraph E.10.a of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Comply with this requirement instead of the requirements in Subsections E.2 through E.9. [LAC 33:III.5109.A]
- 671 Compressors (no detectable emissions): VOC, Total monitored by the regulation's specified method(s) once initially upon designation, annually, and at other times requested by DEQ, as specified in Paragraph E.10.b of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Comply with this requirement instead of the requirements in Subsections E.2 through E.9. [LAC 33:III.5109.A]
- Which Months: All Year Statistical Basis: None specified
- 672 Pressure relief device in gas/vapor service: VOC, Total < 500 ppm except during pressure releases, as measured by the method specified in Section P.3, as specified in Section F.1 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). [LAC 33:III.5109.A]
- Which Months: All Year Statistical Basis: None specified
- 673 Pressure relief device in gas/vapor service: After each pressure release, return to a condition of no leakage, as indicated by an instrument reading of less than 500 ppm, as soon as practicable, but no later than five calendar days after each pressure release, except as provided in Section F.2.a of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). [LAC 33:III.5109.A]
- 674 Pressure relief device in gas/vapor service: VOC, Total monitored by the regulation's specified method(s) within 5 days (calendar) after the pressure release to confirm the condition of no leakage, as indicated by an instrument reading of less than 500 ppm above background, as specified in Section F.2.b of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Monitor using the method specified in Subsection P.3. [LAC 33:III.5109.A]
- Which Months: All Year Statistical Basis: None specified

SPECIFIC REQUIREMENTS**AI ID: 3271 - Sasio North America Inc - Lake Charles Chemical Complex****Activity Number: PER20060002****Permit Number: 2743-V2****Air - Title V Regular Permit Renewal****FUG008 ETH-FE-1-E - Ethylene Unit Fugitive**

675 Pressure relief device in gas/vapor service: Equip with a closed-vent system capable of capturing and transporting leakage from the pressure relief device to a control device as described in Section N, as specified in Section F.2. b of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Alternative to Subsections F.1 and F.2. [LAC 33:III.5109.A]

676 Sampling connection systems: Equip with a closed-purge system or closed-vent system, except as provided for in Section C, as specified in Subsection G.1 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Ensure that this system collects or captures the sample purge for return to the process. [LAC 33:III.5109.A]

677 Sampling connection systems (closed-purge or closed-vent system): Return the purged process fluid directly to the process line with zero VOTAP emissions to the atmosphere, or collect and recycle the purged process fluid with zero VOTAP emissions to the atmosphere, or be designed and operated to capture and transport all the purged process fluid to a control device that complies with the requirements of Section N, as specified in Subsection G.2 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). [LAC 33:III.5109.A]

678 Open-ended valves or lines: Equip with a cap, blind flange, plug, or a second valve that seals the open end at all times except during operations requiring process fluid flow through the open-ended valve or line or during maintenance and repair, as specified in Subsection H.1 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). [LAC 33:III.5109.A]

679 Open-ended valves or lines (equipped with a second valve): Operate in a manner such that the valve on the process fluid end is closed before the second valve is closed, as specified in Subsection H.2 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). [LAC 33:III.5109.A]

680 Open-ended valves or lines: Monitor and repair in accordance with Section I, as specified in Subsection H.4 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). [LAC 33:III.5109.A]

681 Valves in gas/vapor service and in light liquid service: VOC, Total monitored by the regulation's specified method(s) quarterly, as specified in Subsection I.1 of the Louisiana MACT Determination for Non-HON Equipment Leak (March 30, 1995). Monitor using the method specified in Subsection P.2. If an instrument reading of 1000 ppm or greater is measured, a leak is detected. If a leak is detected, initiate repair provisions specified in Subsection I.3. [LAC 33:III.5109.A]

Which Months: All Year Statistical Basis: None specified

682 Valves in gas/vapor service and in light liquid service (percent leaking valves ≥ 4): VOC, Total monitored by the regulation's specified method(s) monthly, as specified in

Subsection I.7 of the Louisiana MACT Determination for Non-HON Equipment Leak (March 30, 1995). Monitor using the method specified in Subsection P.2. Initiate monthly monitoring within 60 days of the previous monitoring and continue until the percent of leaking valves is less than 4, at which time monitoring can be performed in accordance with Subsection I.1. [LAC 33:III.5109.A]

Which Months: All Year Statistical Basis: None specified

683 Valves in gas/vapor service and in light liquid service (percent leaking valves ≤ 2 for two consecutive quarterly leak detection periods): VOC, Total monitored by the regulation's specified method(s) semiannually, as specified in Paragraph J.2.a of the Louisiana MACT Determination for Non-HON Equipment Leak (March 30, 1995). Monitor using the method specified in Section P. If the percentage of valves leaking is greater than 2 for any monitoring period, comply with the requirements as described in Section I, as specified in Paragraph J.2.c of the Louisiana MACT Determination for Refinery Equipment Leaks (July 26, 1994). Optional alternative to quarterly monitoring. [LAC 33:III.5109.A]

Which Months: All Year Statistical Basis: None specified

684 Valves in gas/vapor service and in light liquid service (percent leaking valves ≤ 2 for two consecutive semianual leak detection periods): VOC, Total monitored by the regulation's specified method(s) annually, as specified in Paragraph J.2.b of the Louisiana MACT Determination for Non-HON Equipment Leak (March 30, 1995). Monitor using the method specified in Section P. If the percentage of valves leaking is greater than 2 for any monitoring period, comply with the requirements as described in Section I, as specified in Paragraph J.2.c of the Louisiana MACT Determination for Refinery Equipment Leaks (July 26, 1994). Optional alternative to quarterly monitoring. [LAC 33:III.5109.A]

Which Months: All Year Statistical Basis: None specified

SPECIFIC REQUIREMENTS

AI ID: 3271 - Saso| North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-v2

Air - Title V Regular Permit Renewal

FUG008 ETH-FE-1-E - Ethylene Unit Fugitive

- 685 Valves in gas/vapor service and in light liquid service: Repair leaks as soon as practicable, but no later than 15 calendar days after a leak is detected, except as provided in Section M, as specified in Subsection I.3 and I.4 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Make a first attempt at repair no later than 5 calendar days after each leak is detected. [LAC 33:III.5109.A]
- 686 Valves in gas/vapor service and in light liquid service (unsafe-to-monitor): Demonstrate that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with Subsection I.1, as specified in Subsection I.5.a of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Comply with this requirement instead of the requirements in Subsection I.1. [LAC 33:III.5109.A]
- 687 Valves in gas/vapor service and in light liquid service (unsafe-to-monitor): VOC, Total monitored by the regulation's specified method(s) at the regulation's specified frequency. Maintain a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times, as specified in Subsection I.5.b of the Louisiana MACT Determination for Refinery Equipment Leaks (July 26, 1994). Monitor using the method specified in Subsection P.2. Comply with this requirement instead of the requirements in Subsection I.1. [LAC 33:III.5109.A]
- Which Months: All Year Statistical Basis: None specified
- 688 Valves in gas/vapor service and in light liquid service (difficult-to-monitor): Demonstrate that the valve cannot be monitored without elevating the monitoring personnel more than two meters above a support service, as specified in Subsection I.6.a of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Comply with this requirement instead of the requirements in Subsection I.1. [LAC 33:III.5109.A]
- 689 Valves in gas/vapor service and in light liquid service (difficult-to-monitor): VOC, Total monitored by the regulation's specified method(s) at the regulation's specified frequency. Maintain a written plan that requires monitoring of the valve at least once per calendar year, as specified in Subsection I.6.c of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Monitor using the method specified in Subsection P.2. Comply with this requirement instead of the requirements in Subsection I.1. [LAC 33:III.5109.A]
- Which Months: All Year Statistical Basis: None specified
- 690 Instrument systems and pressure relief devices in liquid service; and pumps, valves, connectors, and agitators in heavy liquid service: VOC, Total monitored by the regulation's specified method(s) within 5 days of finding evidence of a potential leak by visual, audible, olfactory, or any other detection method, as specified in Section K.1 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Monitor using the method specified in Subsection P.2. If an instrument reading of 10000 ppm or greater for agitators, 2000 ppm or greater for pumps or 1000 ppm or greater for valves, connectors, instrument systems, or pressure relief devices is measured, a leak is detected. If a leak is detected, initiate repair provisions specified in Subsection K.3. [LAC 33:III.5109.A]
- Which Months: All Year Statistical Basis: None specified
- 691 Instrument systems and pressure relief devices in liquid service; and pumps, valves, connectors, and agitators in heavy liquid service: Repair leaks as soon as practicable, but not later than 15 calendar days after a leak is detected, except as provided in Section M, as specified in Subsection K.3 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Make a first attempt at repair no later than 5 calendar days after each leak is detected. [LAC 33:III.5109.A]
- 692 Surge control vessels and bottoms receivers: Equip each surge control vessel and bottoms receiver that is not routed back to the process with a closed-vent system that routes the organic vapors vented from the vessel back to the process or to a control device that complies with the requirements of Section N or to an alternate method of control which has been approved by DEQ, as specified in Section L of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). [LAC 33:III.5109.A]
- 693 Delay of Repair: Repair equipment before the end of the next process unit shutdown, if repair is technically infeasible without a process unit shutdown, as specified in Subsection M.1 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). [LAC 33:III.5109.A]
- 694 Connectors in gas/vapor service and in light liquid service: VOC, Total monitored by the regulation's specified method(s) once initially, as specified in Subsections O.1 and O.2 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Monitor using the method specified in Section P. If an instrument reading >= 1000 ppm is measured, a leak is detected. If a leak is detected, initiate repair provisions specified in Subsection O.9, except as provided in Section M. [LAC 33:III.5109.A]
- Which Months: All Year Statistical Basis: None specified

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sassel North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

FUG008 ETH-FE-1-E - Ethylene Unit Fugitive

695 Connectors in gas/vapor service and in light liquid service (percent of leaking connectors ≤ 2): VOC, Total monitored by the regulation's specified method(s) annually, as specified in Subsections O.2 and O.4 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Monitoring must be performed within one year from the previous monitoring. Monitor using the method specified in Section P. If an instrument reading ≥ 1000 ppm is measured, a leak is detected. Initiate repair provisions specified in Subsection O.9, except as provided in Section M. [LAC 33:III.5109.A]

Which Months: All Year Statistical Basis: None specified

696 Connectors in gas/vapor service and in light liquid service (percent of leaking connectors > 2): VOC, Total monitored by the regulation's specified method(s) quarterly until good performance is obtained or until four quarterly monitorings have been performed, as specified in Subsections O.2 and O.5 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). If good performance has not been obtained after four quarters of monitoring, monitor the remaining unchecked connectors within six months of the last quarterly monitoring period, as specified in Subsection O.6 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). If monitoring of the remaining connectors indicates good performance, monitor in accordance with Subsection O.4. If monitoring of the remaining connectors indicates that good performance has not been obtained, monitor in accordance with Subsection O.5. Monitor using the method specified in Section P. If an instrument reading ≥ 1000 ppm is measured, a leak is detected. If a leak is detected, initiate repair provisions specified in Subsection O.9, except as provided in Section M. [LAC 33:III.5109.A]

Which Months: All Year Statistical Basis: None specified

697 Connectors in gas/vapor service and in light liquid service (welded completely around the circumference of the interface or physically removed and the pipe welded together): Equipment/operational data monitored by the regulation's specified method(s) within three months after being welded. Check the integrity of the weld by monitoring according to the procedures in Section P or by testing using x-ray, acoustic monitoring, hydrotesting, or other applicable method, as specified in Subsection O.7 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Comply with this requirement instead of the requirements in Subsection O. [LAC 33:III.5109.A]

Which Months: All Year Statistical Basis: None specified

698 Connectors in gas/vapor service and in light liquid service (opened or otherwise had the seal broken): VOC, Total monitored by the regulation's specified method(s) within 90 days after being returned to VOTAP service. Monitor each connector that has been opened or has otherwise had the seal broken, including those determined to be unrepairable prior to process unit shutdown, as specified in Paragraph O.8 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Monitor using the method specified in Section P. If the follow-up monitoring detects a leak, initiate repair provisions specified in Subsection O.9, unless it is determined to be unrepairable. [LAC 33:III.5109.A]

Which Months: All Year Statistical Basis: None specified

699 Connectors in gas/vapor service and in light liquid service (≤ 1 inch in diameter): Comply with the requirements of Section K, as specified in Paragraph O.8.b of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Comply with this requirement instead of the requirements in Paragraph O.2. [LAC 33:III.5109.A]

700 Connectors in gas/vapor service and in light liquid service (≤ 1 inch in diameter): VOC, Total monitored by the regulation's specified method(s) within 90 days after being returned to VOTAP service. Monitor each connector that has been opened or has otherwise had the seal broken, as specified in Paragraph O.8.b of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Monitor using the method specified in Section P. If the follow-up monitoring detects a leak, initiate repair provisions specified in Subsection O.9. Comply with this requirement instead of the requirements in Paragraph O.2. [LAC 33:III.5109.A]

Which Months: All Year Statistical Basis: None specified

701 Connectors in gas/vapor service and in light liquid service: Repair Leaks as soon as practicable, but not later than 15 calendar days after a leak is detected, except as provided in Subsection O.8. Make a first attempt at repair no later than 5 calendar days after each leak is detected. If a leak is detected, monitor the for leaks within the first 90 days after its repair, as specified in Subsection O.9 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). [LAC 33:III.5109.A]

702 Connectors in gas/vapor service and in light liquid service (unsafe-to-monitor): Determine that the connector is unsafe to monitor because personnel would be exposed to an immediate danger as a result of complying with Subsections O.2 through O.6, as specified in Subsection O.10.a of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Comply with this requirement instead of the requirements in Subsection O.2 through O.6. [LAC 33:III.5109.A]

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sloss North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

FUG008 ETH-FE-1-E - Ethylene Unit Fugitive

- 703 Connectors in gas/vapor service and in light liquid service (unsafe-to-monitor): VOC, Total monitored by the regulation's specified frequency. Maintain a written plan that requires monitoring as frequently as practicable during safe-to-monitor periods, as specified in Subsection O.10.b of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Monitor using the method in Section P. Comply with this requirement instead of the requirements in Subsection O.2 through O.6. [LAC 33:III.5109.A]
- Which Months: All Year Statistical Basis: None specified
- 704 Connectors in gas/vapor service and in light liquid service (inaccessible or glass or glass-lined): Repair leaks as soon as practicable, but no later than 15 calendar days after detecting a leak by visual, audible, olfactory or other means, except as specified in Subsection O.8, as specified in Subsection O.11.b of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Make a first attempt at repair no later than 5 calendar days after the leak is detected, as specified in Subsection O.11.c of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Comply with this requirement instead of the monitoring requirements of Subsection O.2 through O.6 and the recordkeeping and reporting requirements. [LAC 33:III.5109.A]
- 705 Connectors in gas/vapor service and in light liquid service: Calculate the percent leaking connectors using the equation in Subsection O.12 for use in determining the monitoring frequency, as specified in Subsection O.12 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). [LAC 33:III.5109.A]
- 706 Comply with the test methods and procedures in Section P, as specified in Subsections P.1 through P.5 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). [LAC 33:III.5109.A]
- 707 Attach a weatherproof and readily visible identification, marked with the equipment identification, to leaking equipment, as specified in Subsection Q.2 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). [LAC 33:III.5109.A]
- 708 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in Subsections Q.1 through Q.13 as applicable, as specified in Section Q of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). [LAC 33:III.5109.A]
- 709 Submit report: Due semiannually starting six months after the initial report required in Subsection R.1. Include the information specified in Paragraphs R.2.a through R.2.e, as specified in Subsection R.2 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). [LAC 33:III.5109.A]
- 710 Valves in gas/vapor service and in light liquid service (skip period leak detection and repair): Notify DEQ 30 days before implementing any of the alternate provisions of Section J, as specified in Subsection R.4 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). [LAC 33:III.5109.A]
- 711 For components in TAP service, permittee shall conduct a leak detection and repair program that meets all applicable provisions of Louisiana MACT for Non-HON (Non Hazardous Organic NESHAP) Equipment Leak Fugitive Emission Sources" - Determined as MACT. [LAC 33:III.5109.A]
- 712 Unsafe- and difficult-to-monitor equipment: Equipment/operational data recordkeeping by electronic or hard copy continuously. Record the identity of equipment designated as unsafe-to-monitor according to the provisions of 40 CFR 63.1022(c)(1) and the planned schedule for monitoring this equipment. Also record the identity of equipment designated as difficult-to-monitor according to the provisions of 40 CFR 63.1022(c)(2), the planned schedule for monitoring this equipment, and an explanation why the equipment is unsafe or difficult-to-monitor. Keep this record at the plant and make available for review by an inspector. Subpart UU. [40 CFR 63.1022(c)(3)]
- 713 Unsafe-to-monitor equipment: Have a written plan that requires monitoring of the equipment as frequently as practical during safe-to-monitor times, but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in 40 CFR 63.1024 if a leak is detected. Comply with this requirement in lieu of the requirements in 40 CFR 63.1025(b) and (d)(2) for valves, 40 CFR 63.1026(b) and the monitoring and inspection requirements of 40 CFR 63.1026(e)(1)(v) through (viii) for pumps, 40 CFR 63.1027(a) and (b) for connectors, and 40 CFR 63.1028(c) for agitators. Subpart UU. [40 CFR 63.1022(c)(4)(i)]
- 714 Difficult-to-monitor equipment: Have a written plan that requires monitoring of the equipment at least once per calendar year and repair of the equipment according to the procedures in 40 CFR 63.1024 if a leak is detected. Comply with this requirement in lieu of the requirements in 40 CFR 63.1025(b) for valves, and 40 CFR 63.1028(c) for agitators. Subpart UU. [40 CFR 63.1022(c)(4)(ii)]
- 715 Connectors (unsafe-to-repair): Equipment/operational data recordkeeping by electronic or hard copy continuously. Record the identity of connectors designated as unsafe-to-repair and an explanation of why the connectors are unsafe-to-repair. Subpart UU. [40 CFR 63.1022(d)(2)]
- 716 Equipment in heavy liquid service: Retain information, data, and analyses used to determine that a piece of equipment is in heavy liquid service; or, when requested by DEQ, demonstrate that the piece of equipment or process is in heavy liquid service. Subpart UU. [40 CFR 63.1022(f)]

SPECIFIC REQUIREMENTS**AI ID:** 3271 - Sasol North America Inc - Lake Charles Chemical Complex**Activity Number:** PER20060002**Permit Number:** 2743-V2**Air - Title V Regular Permit Renewal****FUG008 ETH-FE-1-E - Ethylene Unit Fugitive**

- 717 Identify equipment subject to 40 CFR 63 Subpart UU as specified in 40 CFR 63.1022(a) through (f), as applicable. Subpart UU. [40 CFR 63.1022]
- 718 Attach a weatherproof and readily visible identification to leaking equipment, when a leak is detected pursuant to the monitoring specified in 40 CFR 63.1023(a). Subpart UU. [40 CFR 63.1023(c)(1)]
- 719 Equipment/operational data recordkeeping by electronic or hard copy upon each occurrence of a leak. Record the information specified in 40 CFR 63.1024(f) when a leak is detected. Keep the records pursuant to the referencing subpart, except keep information for connectors complying with the 8 year monitoring period allowed under 40 CFR 63.1027(b)(3)(iii) for 5 years beyond the date of its last use. Subpart UU. [40 CFR 63.1023(e)(2)]
- 720 Repair each leak detected as soon as practical, but not later than 15 calendar days after it is detected, except as specified in 40 CFR 63.1024(d) and (e). Make a first attempt at repair no later than 5 calendar days after the leak is detected. Subpart UU. [40 CFR 63.1024(a)]
- 721 Equipment/operational data recordkeeping by electronic or hard copy upon each occurrence of delay of repair of a leak. Maintain a record of the facts that explain any delay of repairs and, where appropriate, why the repair was technically infeasible without a process unit shutdown. Subpart UU. [40 CFR 63.1024(d)]
- 722 Valves in gas/vapor service and light liquid service (the greater of 2 valves or 2% leaking): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 monthly to detect leaks. If a reading of 500 ppm or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in 40 CFR 63.1025(d). Subpart UU. [40 CFR 63.1025(b)(3)(i)]
- Which Months: All Year Statistical Basis: None specified
- 723 Valves in gas/vapor service and light liquid service (less than the greater of 2 valves or 2% leaking): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 quarterly to detect leaks, except as specified in 40 CFR 63.1025(b)(3)(ii) through (b)(3)(v). If a reading of 500 ppm or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in 40 CFR 63.1025(d). Subpart UU. [40 CFR 63.1025(b)(3)(ii)]
- Which Months: All Year Statistical Basis: None specified
- 724 Valves in gas/vapor service and light liquid service (less than 1% leaking): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 semiannually to detect leaks. If a reading of 500 ppm or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in 40 CFR 63.1025(d). Alternative to quarterly monitoring in 40 CFR 63.1025(b)(3)(ii). Subpart UU. [40 CFR 63.1025(b)(3)(iii)]
- Which Months: All Year Statistical Basis: None specified
- 725 Valves in gas/vapor service and light liquid service (less than 0.5% leaking): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 annually to detect leaks. If a reading of 500 ppm or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in 40 CFR 63.1025(d). Alternative to quarterly monitoring in 40 CFR 63.1025(b)(3)(ii). Subpart UU. [40 CFR 63.1025(b)(3)(iv)]
- 726 Valves in gas/vapor service and light liquid service (less than 0.25% leaking): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 once every two years to detect leaks. If a reading of 500 ppm or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in 40 CFR 63.1025(d). Alternative to quarterly monitoring in 40 CFR 63.1025(b)(3)(ii). Subpart UU. [40 CFR 63.1025(b)(3)(v)]
- Which Months: All Year Statistical Basis: None specified
- 727 Valves in gas/vapor service and light liquid service: Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep a record of the monitoring schedule for each process unit. Subpart UU. [40 CFR 63.1025(b)(3)(vi)]
- 728 Valves in gas/vapor service and light liquid service: Calculate the percent leaking valves for each monitoring period for each process unit or valve subgroup using the equation in 40 CFR 63.1025(c)(1)(ii). Subpart UU. [40 CFR 63.1025(c)(1)(ii)]
- 729 Valves in gas/vapor service and light liquid service: Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 within three months after repair of a leak to determine whether the valve has resumed leaking. Subpart UU. [40 CFR 63.1025(d)(2)]
- Which Months: All Year Statistical Basis: None specified

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex
 Activity Number: PER20060002
 Permit Number: 2743-V2
 Air - Title V Regular Permit Renewal

FUG008 ETH-FE-1-E - Ethylene Unit Fugitive

730 Valves in gas/vapor service and light liquid service (unsafe-to-monitor): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 at the regulation's specified frequency to detect leaks. Monitor as frequently as practical during safe-to-monitor times, but not more frequently than the periodic monitoring schedule otherwise applicable. If a reading of 500 ppm or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in 40 CFR 63.1024. Comply with this requirement in lieu of the requirements in 40 CFR 63.1025(b) and (d)(2). Subpart UU. [40 CFR 63.1025(e)(1)]

Which Months: All Year Statistical Basis: None specified

731 Valves in gas/vapor service and light liquid service (difficult-to-monitor): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 annually to detect leaks. Monitor at least once per calendar year. If a reading of 500 ppm or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in 40 CFR 63.1024. Comply with this requirement in lieu of the requirements in 40 CFR 63.1025(b). Subpart UU. [40 CFR 63.1025(e)(2)]

Which Months: All Year Statistical Basis: None specified

732 Valves in gas/vapor service and light liquid service (fewer than 250 valves): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 quarterly to detect leaks. If a reading of 500 ppm or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in 40 CFR 63.1024. Comply with this requirement in lieu of the monthly monitoring specified in 40 CFR 63.1025(b)(3)(i). Subpart UU. [40 CFR 63.1025(e)(3)]

Which Months: All Year Statistical Basis: None specified

733 Pumps in light liquid service: Presence of a leak monitored by visual inspection/determination weekly (calendar). Monitor for indications of liquids dripping from the pump seal. If there are indications of liquids dripping from the pump seal, follow the procedure specified in 40 CFR 63.1026(b)(4)(i) or (b)(4)(ii). Subpart UU. [40 CFR 63.1026(b)(4)]

Which Months: All Year Statistical Basis: None specified

734 Pumps in light liquid service: Inspection records recordkeeping by electronic or hard copy weekly. Document that the leak inspection was conducted and the date of the inspection. Subpart UU. [40 CFR 63.1026(b)(4)]

735 Pumps in light liquid service: Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 monthly to detect leaks. If a reading of 5,000 ppm (pumps handling polymerizing monomers), 2,000 ppm (pumps in food/medical service), or 1,000 ppm (all other pumps) or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in 40 CFR 63.1026(d). Initiate repairs for pumps with a 1,000 ppm leak definition only when an instrument reading of 2,000 ppm or greater is detected. Subpart UU. [40 CFR 63.1026(b)]

Which Months: All Year Statistical Basis: None specified

736 Pumps in light liquid service: Implement a quality improvement program that complies with 40 CFR 63.1035 if, when calculated on a 6-month rolling average, at least the greater of either 10 percent of the pumps in a process unit or three pumps in a process unit leak. Subpart UU. [40 CFR 63.1026(c)(2)]

737 Pumps in light liquid service: Determine percent leaking pumps using the equation specified in 40 CFR 63.1026(c)(4). Subpart UU. [40 CFR 63.1026(c)(4)]

738 Pumps in light liquid service (dual mechanical seal system): Determine, based on design considerations and operating experience, criteria applicable to the presence and frequency of drips and to the sensor that indicates failure of the seal system, the barrier fluid system, or both. Comply with this requirement in lieu of the requirements in 40 CFR 63.1026(b). Subpart UU. [40 CFR 63.1026(e)(1)(i)]

739 Pumps in light liquid service (dual mechanical seal system): Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records at the plant of the design criteria and an explanation of the design criteria; and any changes to these criteria and the reasons for the changes. Make records available for review by an inspector. Comply with this requirement in lieu of the requirements in 40 CFR 63.1026(b). Subpart UU. [40 CFR 63.1026(e)(1)(i)]

740 Pumps in light liquid service (dual mechanical seal system): Operate with the barrier fluid at a pressure that is at all times (except periods of startup, shutdown, or malfunction) greater than the pump stuffing box pressure; or equip with a barrier fluid degassing reservoir that is routed to a process or fuel gas system or connected by a closed-vent system to a control device that complies with the requirements of either 40 CFR 63.1034 or 63.1021(b); or equip with a closed-loop system that purges the barrier fluid into a process stream. Comply with this requirement in lieu of the requirements in 40 CFR 63.1026(b). Subpart UU. [40 CFR 63.1026(e)(1)(ii)]

741 Pumps in light liquid service (dual mechanical seal system): Ensure that the barrier fluid is not in light liquid service. Comply with this requirement in lieu of the requirements in 40 CFR 63.1026(b). Subpart UU. [40 CFR 63.1026(e)(1)(iii)]

SPECIFIC REQUIREMENTS**All ID: 3271 - Sassel North America Inc - Lake Charles Chemical Complex****Activity Number: PER20060002****Permit Number: 2743-V2****Air - Title V Regular Permit Renewal****FUG008 ETH-FE-1-E - Ethylene Unit Fugitive**

742 Pumps in light liquid service (dual mechanical seal system): Equip barrier fluid system with a sensor that will detect failure of the seal system, the barrier fluid system, or both. Comply with this requirement in lieu of the requirements in 40 CFR 63.1026(b). Subpart UU. [40 CFR 63.1026(e)(1)(iv)]

743 Pumps in light liquid service (dual mechanical seal system): Presence of a leak monitored by visual inspection/determination weekly (calendar). Monitor for indications of liquids dripping from the pump seal. If there are indications of liquid dripping from the pump seal, follow the procedure specified in 40 CFR 63.1026(e)(1)(v)(A) or (e)(1)(v)(B) prior to the next required inspection. Comply with this requirement in lieu of the requirements in 40 CFR 63.1026(b). Subpart UU. [40 CFR 63.1026(e)(1)(v)]

Which Months: All Year Statistical Basis: None specified

744 Pumps in light liquid service (dual mechanical seal system): Inspection records recordkeeping by electronic or hard copy weekly. Document that the leak inspection was conducted and the date of the inspection. Comply with this requirement in lieu of the requirements in 40 CFR 63.1026(b). Subpart UU. [40 CFR 63.1026(e)(1)(v)]

745 Pumps in light liquid service (dual mechanical seal system - sensor): Presence of a leak monitored by visual inspection/determination daily, or equip with an audible alarm unless the pump is located within the boundary of an unmanned plant site. If a leak is detected, initiate repair provisions specified in 40 CFR 63.1024. Comply with this requirement in lieu of the requirements in 40 CFR 63.1026(b). Subpart UU. [40 CFR 63.1026(e)(1)(vii)]

Which Months: All Year Statistical Basis: None specified

746 Pumps in light liquid service (unmanned plant site): Presence of a leak monitored by visual inspection/determination at the regulation's specified frequency. Monitor as often as practical and at least monthly. Comply with this requirement in lieu of the weekly visual inspection requirement of 40 CFR 63.1026(b)(4) and (e)(1)(v), and the daily requirements of 40 CFR 63.1026(e)(1)(vi). Subpart UU. [40 CFR 63.1026(e)(4)]

Which Months: All Year Statistical Basis: None specified

747 Pumps in light liquid service (unsafe-to-monitor): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 at the regulation's specified frequency to detect leaks. Monitor as frequently as practical during safe-to-monitor times, but not more frequently than the periodic monitoring schedule otherwise applicable. If a reading of 5,000 ppm (pumps handling polymerizing monomers), 2,000 ppm (pumps in food/medical service), or 1,000 ppm (all other pumps) or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in 40 CFR 63.1024. Comply with this requirement in lieu of the requirements of 40 CFR 63.1026(b) and the monitoring and inspection requirements of 40 CFR 63.1026(e)(1)(v) through (viii). Subpart UU. [40 CFR 63.1026(e)(6)]

Which Months: All Year Statistical Basis: None specified

748 Connectors in gas/vapor service and light liquid service: Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 at the regulation's specified frequency. Monitor all connectors in each process unit initially for leaks by the later of either 12 months after the compliance date as specified in a referencing subpart or 12 months after initial startup. If an instrument reading of 500 ppm or greater is measured, a leak is detected. If a leak is detected, initiate repair provisions specified in 40 CFR 63.1027(d). Subpart UU. [40 CFR 63.1027(a)]

Which Months: All Year Statistical Basis: None specified

749 Connectors in gas/vapor service and light liquid service (0.5% or greater leaking connectors): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 at the regulation's specified frequency. Monitor within 12 months after the initial monitoring specified in 40 CFR 63.1027(a). If a reading of 500 ppm is detected, initiate repair provisions specified in 40 CFR 63.1027(b)(3)(i)

Which Months: All Year Statistical Basis: None specified

750 Connectors in gas/vapor service and light liquid service (greater than or equal to 0.25% but less than 0.5% leaking connectors): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 at the regulation's specified frequency. Monitor within 4 years after the initial monitoring specified in 40 CFR 63.1027(d). If a reading of 500 ppm is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in 40 CFR 63.1027(b)(3)(ii)]

Which Months: All Year Statistical Basis: None specified

751 Connectors in gas/vapor service and light liquid service (less than 0.25% leaking connectors): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 at the regulation's specified frequency. Monitor connectors as specified in 40 CFR 63.1027(b)(3)(iii)(C), as appropriate. If a reading of 500 ppm is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in 40 CFR 63.1027(b)(3)(iii)]

Which Months: All Year Statistical Basis: None specified

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sarsol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

FUG008 ETH-FE-1-E - Ethylene Unit Fugitive

752 Connectors in gas/vapor service and light liquid service: Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 within 90 days after repair of a connector that is found to be leaking during the monitoring conducted pursuant to 40 CFR 63.1027(b)(3)(i) through (b)(3)(iii), to confirm that it is not leaking. Subpart UU. [40 CFR 63.1027(b)(3)(iv)]
 Which Months: All Year Statistical Basis: None specified

753 Connectors in gas/vapor service and light liquid service: Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep a record of the start date and end date of each monitoring period under 40 CFR 63.1027 for each process unit. Subpart UU. [40 CFR 63.1027(b)(3)(v)]

754 Connectors in gas/vapor service and light liquid service: Calculate percent leaking connectors using the equation in 40 CFR 63.1027(c). Subpart UU. [40 CFR 63.1027(c)]

755 Connectors in gas/vapor service and light liquid service (unsafe-to-monitor): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 at the regulation's specified frequency to detect leaks. Monitor as frequently as practical during safe-to-monitor times, but not more frequently than the periodic monitoring schedule otherwise applicable. If a reading of 500 ppm or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in 40 CFR 63.1024. Comply with this requirement in lieu of the requirements in 40 CFR 63.1027(a) and (b). Subpart UU. [40 CFR 63.1027(e)(1)]

Which Months: All Year Statistical Basis: None specified

756 Connectors in gas/vapor service and light liquid service (inaccessible, ceramic, or ceramic-lined): Eliminate the visual, audible, olfactory, or other indications of a leak to the atmosphere as soon as practical, if connector is observed by visual, audible, olfactory, or other means to be leaking. Comply with this requirement in lieu of the monitoring requirements of 40 CFR 63.1027(a) and (b), and the recordkeeping and reporting requirements of 63.1038 and 63.1039. Subpart UU. [40 CFR 63.1027(e)(2)(ii)]

757 Agitators in gas/vapor service and light liquid service: Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 monthly to detect leaks, except as specified in 40 CFR 63.1027(b), 63.1036, 63.1037, or 63.1028(e). If a reading of 10,000 ppm or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in 40 CFR 63.1028(d). Subpart UU. [40 CFR 63.1028(c)(1)]

Which Months: All Year Statistical Basis: None specified

758 Agitators in gas/vapor service and light liquid service: Presence of a leak monitored by visual inspection/determination weekly (calendar) for indications of liquids dripping from the agitator seal. If there are indications of liquids dripping from the agitator seal, follow the procedures specified in 40 CFR 63.1028(c)(3)(ii)(A) or (c)(3)(ii)(B) prior to the next required inspection. Subpart UU. [40 CFR 63.1028(c)(3)]

Which Months: All Year Statistical Basis: None specified

759 Agitators in gas/vapor service and light liquid service: Inspection records recordkeeping by electronic or hard copy weekly. Document that the leak inspection was conducted and the date of the inspection. Subpart UU. [40 CFR 63.1028(c)(3)]

760 Agitators in gas/vapor service and light liquid service (dual mechanical seal system): Operate with the barrier fluid at a pressure that is at all times (except during periods of startup, shutdown, or malfunction) greater than the agitator stuffing box pressure; or equip with a barrier fluid degassing reservoir that is routed to a process or fuel gas system or connected by a closed-vent system to a control device that meets the requirements of either 40 CFR 63.1034 or 63.1027(b); or equip with a closed-loop system that purges the barrier fluid into a process stream. Comply with this requirement in lieu of the requirements in 40 CFR 63.1028(c). Subpart UU. [40 CFR 63.1028(e)(1)(i)]

761 Agitators in gas/vapor service and light liquid service (dual mechanical seal system): Ensure that the barrier fluid is not in light liquid service. Comply with this requirement in lieu of the requirements in 40 CFR 63.1028(e)(1)(ii)

762 Agitators in gas/vapor service and light liquid service (dual mechanical seal system): Equip barrier fluid system with a sensor that will detect failure of the seal system, barrier fluid system, or both. Comply with this requirement in lieu of the requirements in 40 CFR 63.1028(c). Subpart UU. [40 CFR 63.1028(e)(1)(iii)]

763 Agitators in gas/vapor service and light liquid service (dual mechanical seal system): Presence of a leak monitored by visual inspection/determination weekly (calendar) for indications of liquids dripping from the agitator seal. If there are indications of liquids dripping from the agitator seal, follow the procedures specified in 40 CFR 63.1028(c). Subpart UU. [40 CFR 63.1028(e)(1)(iv)]

Which Months: All Year Statistical Basis: None specified

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

FUG008 ETH-FE-1-E - Ethylene Unit Fugitive

764 Agitators in gas/vapor service and light liquid service (dual mechanical seal system - sensor): Presence of a leak monitored by visual inspection/determination daily, or equip with an audible alarm unless the agitator seal is located within the boundary of an unmanned plant site. Comply with this requirement in lieu of the requirements in 40 CFR 63.1028(c). Subpart UU. [40 CFR 63.1028(e)(1)(v)]

Which Months: All Year Statistical Basis: None specified

765 Agitators in gas/vapor service and light liquid service (dual mechanical seal system): Determine, based on design considerations and operating experience, criteria that indicates failure of the seal system, the barrier fluid system, or both and applicable to the presence and frequency of drips. If indications of liquids dripping from the agitator seal exceed the criteria, or if, based on the criteria the sensor indicates a failure of the seal system, the barrier fluid system, or both, a leak is detected. If a leak is detected, repair pursuant to 40 CFR 63.1024, as applicable. Comply with this requirement in lieu of the requirements in 40 CFR 63.1028(c). Subpart UU. [40 CFR 63.1028(e)(1)(vi)(A)]

766 Agitators in gas/vapor service and light liquid service (dual mechanical seal system): Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the design criteria and an explanation of the design criteria; and any changes to these criteria and the reasons for the changes. Comply with this requirement in lieu of the requirements in 40 CFR 63.1028(c). Subpart UU. [40 CFR 63.1028(e)(1)(vi)(B)]

767 Agitators in gas/vapor service and light liquid service (unmanned plant site): Presence of a leak monitored by visual inspection/determination at the regulation's specified frequency. Monitor each agitator as often as practicable and at least monthly. Comply with this requirement in lieu of the weekly visual inspection requirements of 40 CFR 63.1028(c)(3) and (c)(1)(iv) and the daily requirements of 40 CFR 63.1028(e)(1)(v). Subpart UU. [40 CFR 63.1028(e)(4)]

Which Months: All Year Statistical Basis: None specified

768 Agitators in gas/vapor service and light liquid service (difficult-to-monitor): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 at the regulation's specified frequency to detect leaks. Monitor at least once per calendar year. If a reading of 10,000 ppm or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in 40 CFR 63.1024. Comply with this requirement in lieu of the requirements in 40 CFR 63.1028(c). Subpart UU. [40 CFR 63.1028(e)(5)]

Which Months: All Year Statistical Basis: None specified

769 Agitators in gas/vapor service and light liquid service (unsafe-to-monitor): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 at the regulation's specified frequency to detect leaks. Monitor as frequently as practical during safe-to-monitor times, but not more frequently than the periodic monitoring schedule otherwise applicable. If a reading of 10,000 ppm or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in 40 CFR 63.1024. Comply with this requirement in lieu of the requirements in 40 CFR 63.1028(c). Subpart UU. [40 CFR 63.1028(e)(7)]

Which Months: All Year Statistical Basis: None specified

770 Pumps, valves, connectors, and agitators in heavy liquid service; pressure relief devices in liquid service; and instrumentation systems: Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 within 5 days (calendar) after evidence of a potential leak to the atmosphere is found by visual, audible, olfactory, or any other detection method, unless the potential leak is repaired as required in 40 CFR 63.1029(c). If an instrument reading of 10,000 ppm or greater (agitators), 5,000 ppm or greater (pumps handling polymerizing monomers), 2,000 ppm or greater (pumps in food and medical service, and all other pumps), or 500 ppm or greater (valves, connectors, instrumentation systems, and pressure relief devices) is measured, a leak is detected. If a leak is detected, repair pursuant to 40 CFR 63.1024, as applicable. Subpart UU. [40 CFR 63.1029(b)]

Which Months: All Year Statistical Basis: None specified

771 Pressure relief devices in gas/vapor service: Organic HAP < 500 ppm except during pressure releases as provided for in 40 CFR 63.1030(c), or as otherwise specified in 40 CFR 63.1036, 63.1037, or 63.1030(d) or (e). Subpart UU. [40 CFR 63.1030(b)]

Which Months: All Year Statistical Basis: None specified

772 Pressure relief devices in gas/vapor service: After each pressure release, return to a condition indicated by an instrument reading of less than 500 ppm, as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in 40 CFR 63.1024(d). Subpart UU. [40 CFR 63.1030(c)(1)]

773 Pressure relief devices in gas/vapor service: Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 within 5 days (calendar) after a pressure release to confirm the condition indicated by an instrument reading of less than 500 ppm above background. Subpart UU. [40 CFR 63.1030(c)(2)]

Which Months: All Year Statistical Basis: None specified

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sassi North America Inc - Lake Charles Chemical Complex
 Activity Number: PER20060002
 Permit Number: 2743-V2
 Air - Title V Regular Permit Renewal

FUG008**ETH-FE-1-E - Ethylene Unit Fugitive**

- 774 Pressure relief devices in gas/vapor service: Monitoring data recordkeeping by electronic or hard copy continuously. Record the dates and results of the monitoring required by 40 CFR 63.1030(c)(2) following a pressure release including the background level measured and the maximum instrument reading measured during the monitoring. Subpart UU. [40 CFR 63.1030(c)(3)]
- 775 Pressure relief devices in gas/vapor service (rupture disk): Install a replacement rupture disk upstream of the pressure relief device as soon as practical after each pressure release but no later than 5 calendar days after each pressure release, except as provided in 40 CFR 63.1024(d). Comply with this requirement in lieu of the requirements in 40 CFR 63.1030(b) and (c). Subpart UU. [40 CFR 63.1030(e)]
- 776 Compressors: Equip with a seal system that includes a barrier fluid system and that prevents leakage of process fluid to the atmosphere, except as provided in 40 CFR 63.1021(b), 63.1036, 63.1037, and 63.1031(e) and (f). Subpart UU. [40 CFR 63.1031(b)]
- 777 Compressors (seal system): Operate with the barrier fluid at a pressure that is greater than the compressor stuffing box pressure at all times (except during periods of startup, shutdown, or malfunction); or equip with a barrier fluid system degassing reservoir that is routed to a process or fuel gas system or connected by a closed-vent system to a control device that meets the requirements of either 40 CFR 63.1034 or 63.1021(b); or equip with a closed-loop system that purges the barrier fluid directly into a process stream. Subpart UU. [40 CFR 63.1031(b)]
- 778 Compressors: Ensure that the barrier fluid is not in light liquid service. Subpart UU. [40 CFR 63.1031(c)]
- 779 Compressors: Equip each barrier fluid system with a sensor that will detect failure of the seal system, barrier fluid system, or both. Subpart UU. [40 CFR 63.1031(c)]
- 780 Compressors (sensor): Presence of a leak monitored by visual inspection/determination daily, or equip with an alarm unless the compressor is located within the boundary of an unmanned plant site. Subpart UU. [40 CFR 63.1031(c)]
- Which Months: All Year Statistical Basis: None specified
- If the sensor indicates failure of the seal system, the barrier fluid system, or both based on the criterion, a leak is detected. If a leak is detected, initiate repair provisions specified in 40 CFR 63.1024, as applicable. Subpart UU. [40 CFR 63.1031(d)(1)]
- 782 Compressors: Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the design criteria and an explanation of the design criteria, and any changes to these criteria and the reasons for the changes. Subpart UU. [40 CFR 63.1031(d)(2)]
- 783 Compressors (routed to a process or fuel gas system or equipped with a closed-vent system): Equip with a system to capture and transport leakage from the compressor drive shaft seal to a process or fuel gas system or to a closed-vent system that captures and transports leakage from the compressor to a control device meeting the requirements of either 40 CFR 63.1034 or 63.1021(b). Comply with this requirement in lieu of the requirements in 40 CFR 63.1031(b) through (d). Subpart UU. [40 CFR 63.1031(c)]
- 784 Compressors (operating with instrument reading of less than 500 ppm above background): Organic HAP < 500 ppm above background at all times, as demonstrated initially upon designation, annually, and at other times requested by DEQ. Comply with this requirement in lieu of the requirements in 40 CFR 63.1031(b) through (d). Subpart UU. [40 CFR 63.1031(f)(1)]
- Which Months: All Year Statistical Basis: None specified
- 785 Compressors (operating with instrument reading of less than 500 ppm above background): Equipment/operational data recordkeeping by electronic or hard copy upon each occurrence of a compliance test. Record the dates and results of each compliance test including the background level measured and the maximum instrument reading measured during each compliance test. Comply with this requirement in lieu of the requirements in 40 CFR 63.1031(b) through (d). Subpart UU. [40 CFR 63.1031(f)(2)]
- 786 Sampling connection systems: Equip with a closed-purge, closed-loop, or closed-vent system, except as provided in 40 CFR 63.1021(b), 63.1036, 63.1037, and 63.1032(d).
- Operate the system as specified in 40 CFR 63.1032(c)(1) through (c)(5). Subpart UU. [40 CFR 63.1032]
- 787 Open-ended valves or lines: Equip with a cap, blind flange, plug, or a second valve, except as provided in 40 CFR 63.1021(b), 63.1036, 63.1037, and 63.1033(c) and (d).
- Ensure that the cap, blind flange, plug or second valve seals the open end at all times except during operations requiring process fluid flow through the open-ended valve or line, or during maintenance. Operate each open-ended valve or line equipped with a second valve in a manner such that the valve on the process fluid end is closed before the second valve is closed. Subpart UU. [40 CFR 63.1033(b)]

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex
Activity Number: PER20060002
Permit Number: 2743-V2
Air - Title V Regular Permit Renewal

FUG008 ETH-FE-1-E - Ethylene Unit Fugitive

- 788 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in 40 CFR 63.1038(b) and (c). Subpart UU. [40 CFR 63.1038]
- 789 Submit Initial Compliance Status Report: Due according to the procedures in the referencing subpart. Include the information listed in 40 CFR 63.1039(a)(1) through (a)(3), as applicable. Subpart UU. [40 CFR 63.1039(a)]
- 790 Submit Periodic Reports: Due according to the procedures in the referencing subpart. Include the information listed in 40 CFR 63.1039(b)(1) through (b)(8), as applicable. Subpart UU. [40 CFR 63.1039(b)]

GRP047 Active Sludge Unit - Ethylene Unit - Steam unit

- 791 Maintain best practical housekeeping and maintenance practices at the highest possible standards to reduce the quantity of organic compounds emissions. Good housekeeping shall include, but not be limited to, the practices listed in LAC 33:III.2113.A.1-5. [LAC 33:III.2113.A]
- 792 Discharges of odorous substances at or beyond property lines which cause a perceived odor intensity of six or greater on the specified eight point butanol scale as determined by Method 41 of LAC 33:III.2901.G are prohibited. [LAC 33:III.2901.D]
- 793 If requested to monitor for odor intensity, take and transport samples in a manner which minimizes alteration of the samples either by contamination or loss of material. Evaluate all samples as soon after collection as possible in accordance with the procedures set forth in LAC 33:III.2901.G. [LAC 33:III.2901.F]
- 794 Submit permit application: Due prior to construction, reconstruction or modification unless otherwise provided in LAC 33:III.Chapter 5. Submit a timely and complete permit application to the Office of Environmental Services, Air Permits Division, as required in accordance with the procedures in LAC 33:III.Chapter 5. [LAC 33:III.501.C.1]
- 795 Particulate matter (10 microns or less) <= 130.12 tons/yr. [LAC 33:III.501.C.6]
- Which Months: All Year Statistical Basis: Annual maximum
- 796 Sulfur dioxide <= 377.83 tons/yr. [LAC 33:III.501.C.6]
- Which Months: All Year Statistical Basis: Annual maximum
- 797 Nitrogen oxides <= 1530.15 tons/yr. [LAC 33:III.501.C.6]
- Which Months: All Year Statistical Basis: Annual maximum
- 798 Carbon monoxide <= 563.09 tons/yr. [LAC 33:III.501.C.6]
- Which Months: All Year Statistical Basis: Annual maximum
- 799 VOC, Total <= 392.97 tons/yr. [LAC 33:III.501.C.6]
- Which Months: All Year Statistical Basis: Annual maximum
- 800 1,1,2-Trichloroethane < 0.0 tons/yr. [LAC 33:III.501.C.6]
- Which Months: All Year Statistical Basis: Annual maximum
- 801 1,2-Dichloroethane <= 3.558 tons/yr. [LAC 33:III.501.C.6]
- Which Months: All Year Statistical Basis: Annual maximum
- 802 1,3-Butadiene <= 5.215 tons/yr. [LAC 33:III.501.C.6]
- Which Months: All Year Statistical Basis: Annual maximum
- 803 Ammonia <= 1.12 tons/yr. [LAC 33:III.501.C.6]
- Which Months: All Year Statistical Basis: Annual maximum
- 804 Benzene <= 18.06 tons/yr. [LAC 33:III.501.C.6]
- Which Months: All Year Statistical Basis: Annual maximum
- 805 Biphenyl < 0.001 tons/yr. [LAC 33:III.501.C.6]
- Which Months: All Year Statistical Basis: Annual maximum

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasso North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

GRP047 Active Sludge Unit - Ethylene Unit - Steam unit

- 806 Chloroform <= 3.44 tons/yr. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: Annual maximum
- 807 Dichloromethane <= 0.01 tons/yr. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: Annual maximum
- 808 Ethylbenzene <= 1.95 tons/yr. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: Annual maximum
- 809 Formaldehyde <= 0.32 tons/yr. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: Annual maximum
- 810 Methanol <= 2.50 tons/yr. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: Annual maximum
- 811 Naphthalene <= 5.80 tons/yr. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: Annual maximum
- 812 Polynuclear Aromatic Hydrocarbons <= 0.001 tons/yr. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: Annual maximum
- 813 n-Hexane <= 1.29 tons/yr. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: Annual maximum
- 814 n-butyl alcohol <= 0.43 tons/yr. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: Annual maximum
- 815 Styrene <= 3.66 tons/yr. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: Annual maximum
- 816 Toluene <= 5.49 tons/yr. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: Annual maximum
- 817 Xylylene (mixed isomers) <= 0.48 tons/yr. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: Annual maximum
- 818 No Part 70 source may operate after the time that the owner or operator of such source is required to submit a permit application under Subsection C of this Section, unless an application has been submitted by the submittal deadline and such application provides information addressing all applicable sections of the application form and has been certified as complete in accordance with LAC 33:III.517.B.1. No Part 70 source may operate after the deadline provided for supplying additional information requested by the permitting authority under LAC 33:III.519, unless such additional information has been submitted within the time specified by the permitting authority. Permits issued to the Part 70 source under this Section shall include the elements required by 40 CFR 70.6. The Louisiana Department of Environmental Quality hereby adopts and incorporates by reference the provisions of 40 CFR 70.6(a), as in effect on July 21, 1992. Upon issuance of the permit, the Part 70 source shall be operated in compliance with all terms and conditions of the permit. Noncompliance with any Federally applicable term or condition of the permit shall constitute a violation of the Clean Air Act and shall be grounds for enforcement action; for permit termination, revocation and reissuance, or revision; or for denial of a permit renewal application. [LAC 33:III.507.B.2]
- 819 Any Part 70 source for which construction or operation has begun prior to the effective date of LAC 33:III.507 shall submit an application for an initial Part 70 permit applications shall be prepared in accordance with LAC 33:III.517 and with forms and guidance provided by DEQ, and shall be submitted no later than one year after the effective date of the Louisiana Part 70 program. [LAC 33:III.507.C.1]
- 820 Any source that becomes subject to the requirements of LAC 33:III.507 after the effective date of the Louisiana Part 70 program due to regulations promulgated by the Environmental Protection Agency or by the Department of Environmental Services, Air Permits Division, in accordance with the requirements established by the applicable regulation. In no case shall the required application be submitted later than one year from the date on which the source first becomes subject to LAC 33:III.507. [LAC 33:III.507.C.3]

SPECIFIC REQUIREMENTS**AI ID: 3271 - Sasso North America Inc - Lake Charles Chemical Complex****Activity Number: PER20060002****Permit Number: 2743-V2****Air - Title V Regular Permit Renewal****Active Sludge Unit - Ethylene Unit - Steam unit****GRP047**

- 821 Any permit application to renew an existing permit shall be submitted at least six months prior to the date of permit expiration, or at such earlier time as may be required by the existing permit or approved by the permitting authority. In no event shall the application for permit renewal be submitted more than 18 months before the date of permit expiration. [LAC 33:III.507.E.4]
- 822 Do not construct or modify any stationary source subject to any standard set forth in LAC 33:III.Chapter 51.Subchapter A without first obtaining written authorization from DEQ in accordance with LAC 33:III.Chapter 51.Subchapter A, after the effective date of the standard. [LAC 33:III.5105.A.1]
- 823 Do not cause a violation of any ambient air standard listed in LAC 33:III.Table 51.2, unless operating in accordance with LAC 33:III.5109. [LAC 33:III.5105.A.2]
- 824 Do not build, erect, install, or use any article, machine, equipment, process, or method, the use of which conceals an emission that would otherwise constitute a violation of an applicable standard. [LAC 33:III.5105.A.3]
- 825 Do not fail to keep records, notify, report or revise reports as required under LAC 33:III.Chapter 51.Subchapter A. [LAC 33:III.5105.A.4]
- 826 Submit Annual Emissions Report (TED): Due annually, by the 1st of July, to the Office of Environmental Assessment, Air Quality Assessment Division, in a format specified by DEQ. Identify the quantity of emissions in the previous calendar year for any toxic air pollutant listed in Table 51.1 or Table 51.3. [LAC 33:III.5107.A.2]
- 827 Include a certification statement with initial and subsequent annual emission reports and revisions to any emission report to attest that the information contained in the emission report is true, accurate, and complete, and signed by a responsible official, as defined in LAC 33:III.502. Include the full name of the responsible official, title, signature, date of signature and phone number of the responsible official. The certification statement shall read: "I certify, under penalty of perjury, that the emissions data provided is accurate to the best of my knowledge, information, and belief, and I understand that submitting false or misleading information will expose me to prosecution under state regulations" [LAC 33:III.5107.A.3]
- 828 Submit notification: Due to the Department of Public Safety 24-hour Louisiana Emergency Hazardous Materials Hotline at (225) 925-6595 immediately, but no later than 1 hour, after any discharge of a toxic air pollutant into the atmosphere which results or threatens to result in an emergency condition (a condition which could reasonably be expected to endanger the health and safety of the public, cause significant adverse impact to the land, water or air environment, or cause severe damage to property). [LAC 33:III.5107.B.1]
- 829 Submit notification: Due to the Office of Environmental Compliance, Emergency and Radiological Services Division, Single Point of Contact (SPOC), except as provided in LAC 33:III.5107.B.6, no later than 24 hours after the beginning of any unauthorized discharge into the atmosphere of a toxic air pollutant as a result of bypassing an emission control device, when the emission control bypass was not the result of an upset, and the quantity of the unauthorized bypass is greater than or equal to the lower of the Minimum Emission Rate (MER) in LAC 33:III.5112, Table 51.1, or a reportable quantity (RQ) in LAC 33:III.3931, or the quantity of the unauthorized bypass is greater than one pound and there is no MER or RQ for the substance in question. Submit notification in the manner provided in LAC 33:III.3923. [LAC 33:III.5107.B.2]
- 830 Submit notification: Due to the Office of Environmental Compliance, Emergency and Radiological Services, SPOC, immediately, but in no case later than 24 hours after any unauthorized discharge of a toxic air pollutant into the atmosphere that does not cause an emergency condition, the rate or quantity of which is in excess of that allowed by permit, compliance schedule, or variance, or for upset events that exceed the reportable quantity in LAC 33:III.3931, except as provided in LAC 33:III.5107.B.6. Submit notification in the manner provided in LAC 33:III.3923. [LAC 33:III.5107.B.3]
- 831 Submit written report: Due within seven calendar days of learning of any such discharge or equipment bypass as referred to in LAC 33:III.5107.B.1 through 3. Submit report to the Office of Environmental Compliance by certified mail. Include the information specified in LAC 33:III.5107.B.4.i through viii. [LAC 33:III.5107.B.4]
- 832 Report all discharges to the atmosphere of a toxic air pollutant from a safety relief device, a line or vessel rupture, a sudden equipment failure, or a bypass of an emission control device, regardless of quantity, in the annual emissions report and where otherwise specified. Include the identity of the source, the date and time of the discharge, and the approximate total loss during the discharge. [LAC 33:III.5107.B.5]
- 833 Submit to DEQ a compliance plan for achieving compliance with MACT requirements in accordance with LAC 33:III.5109.D. Include the elements listed under LAC 33:III.5109.E. [LAC 33:III.5109.A.1]
- 834 Submit to DEQ a certification of compliance with all MACT requirements, in accordance with LAC 33:III.5109.D. Include the elements listed in LAC 33:III.5109.E. [LAC 33:III.5109.A.2]

SPECIFIC REQUIREMENTS**AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex****Activity Number: PER20060002****Permit Number: 2743-V2****Air - Title V Regular Permit Renewal****GRP047 Active Sludge Unit - Ethylene Unit - Steam unit**

- 835 Achieve compliance with ambient air standards unless it can be demonstrated to the satisfaction of DEQ that compliance with an ambient air standard would be economically infeasible; that emissions could not reasonably be expected to pose a threat to public health or the environment; and that emissions would be controlled to a level that is Maximum Achievable Control Technology. [LAC 33:III.5109.B.3]
- 836 Determine the status of compliance, beyond the property line, with applicable ambient air standards listed in LAC 33:III.5112. Table 51.2. [LAC 33:III.5109.B]
- 837 Develop a standard operating procedure (SOP) within 120 days after achieving or demonstrating compliance with the standards specified in LAC 33:III.Chapter 51. Detail in the SOP all operating procedures or parameters established to ensure that compliance with the applicable standards is maintained and address operating procedures for any monitoring system in place, specifying procedures to ensure compliance with LAC 33:III.51.13.C.5. Make a written copy of the SOP available on site or at an alternate approved location for inspection by DEQ. Provide a copy of the SOP within 30 days upon request by the department. [LAC 33:III.5109.C]
- 838 Submit notification: Due to the permitting authority prior to the initiation of any project which will result in emission reductions. Include in the notification a description of the proposed action, a location map, a description of the composition of air contaminants involved, the rate and temperature of the emissions, the identity of the sources involved and the change in emissions. Make any appropriate permit revision reflecting the emission reduction no later than 180 days after commencement of operation and in accordance with the procedures of LAC 33:III.Chapter 5. [LAC 33:III.511]
- 839 Obtain a Louisiana Air Permit in accordance with LAC 33:III.5111.B and C and in accordance with LAC 33:III.1701, before commencement of the construction of any new source. [LAC 33:III.5111.A.1]
- 840 Obtain a permit modification in accordance with LAC 33:III.5111.B and C before commencement of any modification not specified in a compliance plan submitted under LAC 33:III.5109.D, if the modification will result in an increase in emissions of any toxic air pollutant or will create a new point source. [LAC 33:III.5111.A.2.a]
- 841 Do not commence construction or modification of any major source without first obtaining written authorization from DEQ, as specified. [LAC 33:III.5111.A]
- 842 Ensure that all testing done to determine the emission of toxic air pollutants, upon request by the department, is conducted by qualified personnel. [LAC 33:III.5113.B.1]
- 843 Provide necessary sampling and testing facilities, exclusive of instruments and sensing devices, as needed to properly determine the emission of toxic air pollutants, upon request of the department. [LAC 33:III.5113.B.3]
- 844 Provide emission testing facilities as specified in LAC 33:III.5113.B.4 through e. [LAC 33:III.5113.B.4]
- 845 Analyze samples and determine emissions within 30 days after each emission test has been completed. [LAC 33:III.5113.B.5]
- 846 Submit certified letter: Due to the Office of Environmental Assessment, Air Quality Assessment Division, before the close of business on the 45th day following the completion of the emission test. Report the determinations of the emission test. [LAC 33:III.5113.B.5]
- 847 Equipment/operational data recordkeeping by electronic or hard copy upon each occurrence of emissions testing. Retain records of emission test results and other data needed to determine emissions. Retained records at the source, or at an alternate location approved by DEQ for a minimum of two years, and make available upon request for inspection by DEQ. [LAC 33:III.5113.B.6]
- 848 Submit notification: Due to the Office of Environmental Assessment, Air Quality Assessment Division, at least 30 days before the emission test. Submit notification of emission test to allow DEQ the opportunity to have an observer present during the test. [LAC 33:III.5113.B.7]
- 849 Maintain and operate each monitoring system in a manner consistent with good air pollution control practices for minimizing emissions. Repair or adjust any breakdown or malfunction of the monitoring system as soon as practicable after its occurrence. [LAC 33:III.5113.C.1]
- 850 Conduct performance evaluation of the monitoring system when required at any other time requested by DEQ. [LAC 33:III.5113.C.2]
- 851 Submit performance evaluation report: Due to the Office of Environmental Assessment, Air Quality Assessment Division, within 60 days of the monitoring system performance evaluation. [LAC 33:III.5113.C.2]
- 852 Submit notification in writing: Due to the Office of Environmental Assessment, Environmental Technology Division at least 30 days before a performance evaluation of the monitoring system is to begin. [LAC 33:III.5113.C.2]

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sassel North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

GRP047 Active Sludge Unit - Ethylene Unit - Steam unit

- 853 Install a monitoring system on each effluent or on the combined effluent, when monitoring is required and the effluents from a single source, or from two or more sources subject to the same emission standards, are combined before being released to the atmosphere. If two or more sources are not subject to the same emission standards, install a separate monitoring system on each effluent, unless otherwise specified. If the applicable standard is a mass emission standard and the effluent from one source is released to the atmosphere through more than one point, install a monitoring system at each emission point unless DEQ approves the installation of fewer systems. [LAC 33:III.5113.C.3]
- 854 Evaluate the performance of continuous monitoring systems, upon request by DEQ, in accordance with the requirements and procedures contained in the applicable performance specification of 40 CFR Part 60, appendix B. [LAC 33:III.5113.C.5.a]
- 855 Submit report: Due to DEQ within 60 days of the performance evaluation of the CMS, if requested. Furnish DEQ with two or more copies of a written report of the test results within 60 days. [LAC 33:III.5113.C.5.a]
- 856 Install all continuous monitoring systems or monitoring devices to make representative measurements under variable process or operating parameters, if required to install a CMS. [LAC 33:III.5113.C.5.d]
- 857 Collect and reduce all data as specified in LAC 33:III.5113.C.5.e.i and ii, if required to install a CMS. [LAC 33:III.5113.C.5.e]
- 858 Submit plan: Due to the Office of Environmental Assessment, Air Quality Assessment Division, within 90 days after DEQ requests either the initial plan or an updated plan, if required by DEQ to install a continuous monitoring system. Submit for approval a plan describing the affected sources and the methods for ensuring compliance with the continuous monitoring system. [LAC 33:III.5113.C.5]
- 859 Maintain records of monitoring data, monitoring system calibration checks, and the occurrence and duration of any period during which the monitoring system is malfunctioning or inoperative. Maintain these records at the source, or at an alternative location approved by DEQ, for a minimum of three years and make available, upon request, for inspection by DEQ. [LAC 33:III.5113.C.7]
- 860 Submit permit application: Due prior to commencement of construction, reconstruction, or modification of the source, for new or modified sources. Do not commence construction, reconstruction, or modification of any source required to be permitted under LAC 33:III.Chapter 5 prior to approval by the permitting authority. [LAC 33:III.5117.A.1]
- 861 Submit supplementary facts or corrected information: Due promptly upon becoming aware of failure to submit or incorrect submittal regarding permit applications. In addition, provide information as necessary to address any requirements that become applicable to the source after the date of filing a complete application but prior to release of a proposed permit. [LAC 33:III.5117.C]
- 862 Submit applications for permits in accordance with forms and guidance provided by the DEQ. At a minimum, each permit application submitted under LAC 33:III.Chapter 5 shall contain the information specified in LAC 33:III.517.D, subparagraphs 1-18. [LAC 33:III.517.D]
- 863 In addition to those elements listed under LAC 33:III.517.D, include in each application pertaining to a Part 70 source the information specified in LAC 33:III.517.E, Subparagraphs 1-8. [LAC 33:III.517.E]
- 864 Activate the preplanned abatement strategy listed in LAC 33:III.561.1. Table 5 when the administrative authority declares an Air Pollution Alert. [LAC 33:III.5609.A.1.b]
- 865 Activate the preplanned strategy listed in LAC 33:III.561.1. Table 6 when the administrative authority declares an Air Pollution Warning. [LAC 33:III.5609.A.2.b]
- 866 Activate the preplanned abatement strategy listed in LAC 33:III.561.1. Table 7 when the administrative authority declares an Air Pollution Emergency. [LAC 33:III.5609.A.3.b]
- 867 Prepare standby plans for the reduction of emissions during periods of Air Pollution Alert, Air Pollution Warning and Air Pollution Emergency. Design standby plans to reduce or eliminate emissions in accordance with the objectives as set forth in LAC 33:III.561.1.Tables 5, 6, and 7. [LAC 33:III.5609.A]
- 868 Comply with the provisions in 40 CFR 68, except as specified in LAC 33:III.590.1. [LAC 33:III.590.1.A]
- 869 Identify hazards that may result from accidental releases of the substances listed in 40 CFR 68.130, Table 59.0 of LAC 33:III.590.1, or Table 59.1 of LAC 33:III.591.3 using appropriate hazard assessment techniques, design and maintain a safe facility, and minimize the off-site consequences of accidental releases of such substances that do occur. [LAC 33:III.590.7]
- 870 Submit amended registration: Due to the Department of Environmental Quality, Office of Environmental Compliance, Emergency and Radiological Services Division, within 60 days after the information in the submitted registration is no longer accurate. [LAC 33:III.591.1.C]

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

GRP047 Active Sludge Unit - Ethylene Unit - Steam unit

- 871 Submit Emission Inventory (EI)/Annual Emissions Statement: Due annually, by the 31st of March for the period January 1 to December 31 of the previous year unless otherwise directed. Submit emission inventory data in the format specified by the Office of Environmental Assessment, Air Quality Assessment Division. Include all data applicable to the emissions source(s), as specified in LAC 33.III.919.A-D. [LAC 33.III.919.D]
- 872 Comply with the requirements of 40 CFR 61.342(c) through (h) no later than 90 days following the effective date, unless a waiver of compliance has been obtained under 40 CFR 61.11, or by the initial startup for a new source with an initial startup after the effective date. Subpart FF. [40 CFR 61.342(b)]
- 873 Waste streams containing benzene: Remove or destroy the benzene contained in the waste using a treatment process or wastewater treatment system that complies with the standards specified in 40 CFR 61.348. Subpart FF. [40 CFR 61.342(c)(1)(i)]
- 874 Determine compliance with 40 CFR 61 Subpart FF using the test methods and procedures specified in 40 CFR 61.355(a) through (i), as applicable. Subpart FF. [40 CFR 61.355]
- 875 Equipment/operational data recordkeeping by electronic or hard copy continuously Maintain records as specified in 40 CFR 61.356(a) through (n). Maintain each record in a readily accessible location at the facility site for a period not less than two years from the date the information is recorded unless otherwise specified. Subpart FF. [40 CFR 61.356]
- 876 Submit report: Due within 90 days after January 7, 1993. Submit a report that summarizes the regulatory status of each waste stream subject to 40 CFR 61.342 and is determined by the procedures specified in 40 CFR 61.355(c) to contain benzene. Include the information specified in 40 CFR 61.357(a)(1) through (a)(4). If there is no benzene onsite in wastes, products, by-products, or intermediates, submit an initial report that is a statement to this effect. Subpart FF. [40 CFR 61.357(a)]
- 877 Submit report: Due within 90 days after January 7, 1993. Submit a certification that the equipment necessary to comply with 40 CFR 61 Subpart FF has been installed and that the required initial inspections or tests have been carried out in accordance with 40 CFR 61 Subpart FF. Subpart FF. [40 CFR 61.357(d)(1)]
- 878 Submit report: Due annually, beginning on the date that equipment necessary to comply with 40 CFR 61 Subpart FF has been certified in accordance with 40 CFR 61.357(d)(1). Submit updates to the information listed in 40 CFR 61.357(a)(1) through (a)(3) or, if the information in 40 CFR 61.357(a)(1) through (3) is not changed in the following year, a statement to that effect. Subpart FF. [40 CFR 61.357(d)(2)]
- 879 Submit report: Due quarterly, beginning three months after the date that the equipment necessary to comply with 40 CFR 61 Subpart FF has been certified in accordance with 40 CFR 61.357(d)(1). Submit a certification that all of the required inspections have been carried out in accordance with the requirements of 40 CFR 61 Subpart FF. Subpart FF. [40 CFR 61.357(d)(6)]
- 880 Submit report: Due quarterly, beginning three months after the date that the equipment necessary to comply with 40 CFR 61 Subpart FF has been certified in accordance with 40 CFR 61.357(d)(1). Include the information specified in 40 CFR 61.357(d)(7)(i) through (d)(7)(v). Subpart FF. [40 CFR 61.357(d)(7)]
- 881 Submit report: Due annually, beginning one year after the date that the equipment necessary to comply with 40 CFR 61 Subpart FF has been certified in accordance with 40 CFR 61.357(d)(1). Submit a report that summarizes all inspections required by 40 CFR 61.342 through 61.354 during which detectable emissions are measured or a problem that could result in benzene emissions is identified, including information about the repairs or corrective action taken. Subpart FF. [40 CFR 61.357(d)(8)]
- 882 All affected facilities shall comply with all applicable provisions in 40 CFR 61 Subpart A. [40 CFR 61]
- 883 Comply with the emission limitations and established parameter ranges at all times except during periods of startup, shutdown, malfunction, or non-operation of the affected source (or specific portion thereof) resulting in cessation of the emissions to which 40 CFR 63 Subpart YY applies. Subpart YY. [40 CFR 63.1108(a)(1)]
- 884 Follow the applicable provisions of the startup, shutdown, malfunction plan required by 40 CFR 63.1111 during periods of startup, shutdown, or malfunction. However, if a startup, shutdown, malfunction or period of non-operation of one portion of an affected source does not affect the ability of a particular emission point to comply with the specific provisions to which it is subject, then that emission point shall still be required to comply with the applicable provisions of 40 CFR 63 Subpart YY and any of the subparts that are referenced by 40 CFR 63 Subpart YY during startup, shutdown, malfunction, or period of non-operation. Subpart YY. [40 CFR 63.1108(a)(1)]
- 885 Comply with the equipment leak requirements at all times except during periods of startup, shutdown, malfunction, process unit shutdown, or non-operation of the affected source (or specific portion thereof) in which the lines are drained and depressurized resulting in cessation of the emissions to which equipment leak requirements apply. Subpart YY. [40 CFR 63.1108(a)(2)]

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sassel North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-y2

Air - Title V Regular Permit Renewal

GRP047 Active Sludge Unit - Ethylene Unit - Steam unit

- 886 Implement, to the extent reasonably available, measures to prevent or minimize excess emissions during startups, shutdowns, and malfunctions. Identify the measures to be taken in the startup, shutdown, and malfunction plan (if applicable). Subpart YY. [40 CFR 63.1108(a)(5)]
- 887 Correct malfunctions as soon as practical after their occurrence and/or in accordance with the startup, shutdown, and malfunction plan developed as specified under 40 CFR 63.1111. Subpart YY. [40 CFR 63.1108(a)(6)]
- 888 Keep copies of notifications, reports and records required by 40 CFR 63 Subpart YY and subparts referenced by 40 CFR 63 Subpart YY for at least 5 years, unless otherwise specified, except as provided in 40 CFR 63.1109(b). Subpart YY. [40 CFR 63.1109(a)]
- 889 Maintain all records required to be maintained by 40 CFR 63 Subpart YY or a subpart referenced by 40 CFR 63 Subpart YY in such a manner that they can be readily accessed and are suitable for inspection. Retain the most recent 2 years of records onsite or make accessible to an inspector while onsite. The records of the remaining 3 years, where required, may be retained offsite. Subpart YY. [40 CFR 63.1109(c)]
- 890 Equipment/operational data recordkeeping by electronic or hard copy as needed. Maintain records containing information developed and used to assess control applicability under 40 CFR 63.1103 (e.g., combined total annual emissions of regulated organic HAP). Subpart YY. [40 CFR 63.1109(d)]
- 891 Submit Notification of Initial Startup: Due within 15 days after initial startup. Send DEQ written notification of the actual date of initial startup. Include the information specified in 40 CFR 63.1110(f). Subpart YY. [40 CFR 63.1110(b)]
- 892 Submit Initial Notification: Due within 1 year after the source becomes subject to 40 CFR 63 Subpart YY. Include the information specified in 40 CFR 63.1110(c)(2) through (c)(7), as applicable, and 63.1110(f). Subpart YY. [40 CFR 63.1110(c)]
- 893 Submit Notification of Compliance Status: Due 240 days after the compliance date, or 60 days after completion of the initial performance test or initial compliance assessment, whichever is earlier. Include the information specified in 40 CFR 63.1110(d)(1)(i), (d)(1)(ii), and (f). Subpart YY. [40 CFR 63.1110(d)]
- 894 Submit Periodic Reports: Due no later than 60 days after the end of each 6-month period. The first report shall cover the 6-month period after the Notification of Compliance Status report is due. Submit the first report no later than the last day of the month that includes the date 8 months (6 months and 60 days) after the Notification of Compliance Status report is due. Include all information specified in 40 CFR 63 Subpart YY and subparts referenced by 40 CFR 63 Subpart YY. Subpart YY. [40 CFR 63.1110(e)]
- 895 Develop and implement a written startup, shutdown, and malfunction plan that describes, in detail, procedures for operating and maintaining the affected source during periods of startup, shutdown, and malfunction. Include a program of corrective action for malfunctioning process and air pollution control equipment used to comply with relevant standards under 40 CFR 63 Subpart YY. Address in the plan routine or otherwise predictable CPMS malfunctions. Develop this plan by the compliance date. Subpart YY. [40 CFR 63.1111(a)(1)]
- 896 Operate and maintain the affected source (including associated air pollution control equipment and CPMS) in accordance with the procedures specified in the startup, shutdown, and malfunction plan developed under 40 CFR 63.1111(a)(1) during periods of startup, shutdown, and malfunction. Subpart YY. [40 CFR 63.1111(a)(2)]
- 897 Revise the startup, shutdown, and malfunction plan within 45 days after an event to include detailed procedures for operating and maintaining the affected source during similar malfunction events and a program of corrective action for similar malfunctions of process or air pollution control equipment or CPMS, if the startup, shutdown, and malfunction plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction but was not included in the startup, shutdown, and malfunction plan at the time the plan was developed. Subpart YY. [40 CFR 63.1111(a)(5)]
- 898 If actions during a startup, shutdown, and malfunction of an affected source, or of a control device or monitoring system required for compliance (including actions taken to correct a malfunction) are consistent with the procedures specified in the plan, state such information in a startup, shutdown, and malfunction report. Submit the startup, shutdown, and malfunction report by the 30th day following the end of each calendar half (or other calendar reporting period, as appropriate), unless the information is submitted with the Periodic Report. Include the information specified in 40 CFR 63.1111(b)(1)(i) through (b)(1)(iv). Subpart YY. [40 CFR 63.1111(b)(1)]
- 899 Any time an action taken during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) during which excess emissions occur is not consistent with the procedures specified in the affected source's plan, report the actions taken for that event within 2 working days after commencing actions inconsistent with the plan, followed by a letter delivered or postmarked within 7 working days after the end of the event. Include in the immediate report the name, title, and signature of the owner or operator or other responsible official who is certifying its accuracy, explaining the circumstances of the event, the reasons for not following the startup, shutdown, and malfunction plan, and whether any excess emissions and/or parameter monitoring exceedances are believed to have occurred. Subpart YY. [40 CFR 63.1111(b)(2)]

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sassel North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

GRP047 Active Sludge Unit - Ethylene Unit - Steam unit

900 All affected facilities shall comply with all applicable provisions in 40 CFR 63 Subpart A as delineated in Table 10 of 40 CFR 63 Subpart DDDDD. [40 CFR 63]